# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 812.---Vol. XXI.] LONDON, SATURDAY, MARCH 15, 1851. [Price 6d.


### Stannaries of Cornwall.—In the Vice-Warden's Court.

WILLIAMS AND OTHERS *v.* TWEEDY AND OTHERS,

*Assignees of Joseph Michell, a Bankrupt.*

*IN RE WHEAL UNITY WOOD MINE, EAST.*

NOTICE IS HEREBY GIVEN, that, pursuant to an Order, or Decree, made in this cause, and bearing date the 18th day of February last, a PUBLIC AUCTION will be HOLDEN at Pearce's Royal Hotel, TRURO, on Thursday, the 20th day of March inst., at Four o'clock in the afternoon, for SELLING, either together or in separate lots, FOUR (47ths) PARTS, or SHARES, and 20,520-355,830th of one other (47th) PART, or SHARE, of the said Defendants, as such assignees as aforesaid, of and in the SAID MINE; and the LIKE PARTS, or SHARES, of and in the ORES, HALVANS, MACHINERY, MATERIALS, and OTHER EFFECTS, upon and belonging to the SAID MINE.

For further information application may be made to Mr. Roberts, solicitor, Truro.
Registrar's Office, Truro, March 6, 1851. 1

### Stannaries of Cornwall—In the Vice-Warden's Court.

WILLIAMS AND OTHERS *v.* TWEEDY AND OTHERS,

*Assignees of Joseph Michell, a Bankrupt.*

*IN RE WHEAL UNITY WOOD MINE, WEST.*

NOTICE IS HEREBY GIVEN, that, pursuant to an Order, or Decree, made in this cause, and bearing date the 18th day of February last, a PUBLIC AUCTION will be HOLDEN at Pearce's Royal Hotel, TRURO, on Thursday, the 20th day of March inst., at Four o'clock in the afternoon, for SELLING, either together or in separate Lots, as may be then arranged, FOUR (47ths) PARTS, or SHARES, and 20,520-355,830th of one other (47th) PART, or SHARE, of the said Defendants, as such assignees as aforesaid, of and in the SAID MINE; and the LIKE PARTS, or SHARES, of and in the ORES, HALVANS, MACHINERY, MATERIALS, and OTHER EFFECTS, upon and belonging to the SAID MINE.

For further information application may be made to Mr. Roberts, solicitor, Truro.
Registrar's Office, Truro, March 6, 1851. 2

### Stannaries of Cornwall—In the Vice-Warden's Court.

SIMMONS *v.* W. MARTIN. 3

*IN RE CARVANNAL MINE.*

NOTICE IS HEREBY GIVEN, that, pursuant to an Order or Decree, made in this cause, and bearing date the 18th day of February last, a PUBLIC AUCTION will be HOLDEN at the Red Lion Hotel, TRURO, on Saturday, the 22d day of March inst., at Four o'clock in the afternoon, for SELLING SIX (132ds) PARTS, or SHARES, of the said Defendant, of and in the SAID MINE; and the LIKE PART, or SHARES, of and in the ORES, HALVANS, MACHINERY, MATERIALS, and OTHER EFFECTS, upon and belonging to the SAID MINE.

For further information application may be made to Mr. G. N. Simmons, solicitor, Truro.
Dated Registrar's Office, Truro, March 12, 1851.

### Stannaries of Cornwall—In the Vice-Warden's Court.

SIMMONS *v.* W. H. MARTIN.

*IN RE CARVANNAL MINE.*

NOTICE IS HEREBY GIVEN, that, pursuant to an Order, or Decree, made in this cause, and bearing date the 18th day of February last, a PUBLIC AUCTION will be HOLDEN at the Red Lion Hotel, TRURO, on Saturday, the 22d day of March inst., at Four o'clock in the afternoon, for SELLING ONE (132d) PART, or SHARE, of the said Defendant, of and in the SAID MINE; and the LIKE PART, or SHARE, of and in the ORES, HALVANS, MACHINERY, MATERIALS, and OTHER EFFECTS upon and belonging to the SAID MINE. 3

For further information application may be made to Mr. G. N. Simmons, solicitor, Truro.
Dated Registrar's Office, Trurp, March 12, 1851.

**TREVELYAN MINE, NEAR MARAZION, CORNWALL,** FOR SALE.—AN AUCTION will be HELD on Wednesday, the 2d day of April next, at Three o'clock in the afternoon, at Crotch's Hotel, HAYLE, in the county of Cornwall, for SELLING all that valuable TIN and COPPER MINE, or ADVENTURE, *called or known by the name of*

TREVELYAN MINE, 5

situate in the parish of PEERANUTHNOE, in the county of Cornwall, extending 800 fathoms in length on the course of the lodes, and 400 fathoms in width, and contiguous to some of the most productive mines in Cornwall, and within a short distance of the Marazion Mines, the lodes of which run through the limits of the sett.

Together with a STEAM-ENGINE of 41-inch cylinder, with PITWORK and MACHINERY, complete.

Several horse-whims, chains, kibbles, and other materials, and an ACCOUNT-HOUSE, smiths and carpenters' shops, tin-house, and other convenient buildings on the mine

There are at least 16 lodes and branches within the sett, some of which are 12 feet wide, and extensive old workings are interspersed over the sett, and the present proprietors have, during the last four or five years, raised about 12,000 worth of tin from a small portion of the limits, the average produce being about 10s. a barrow.

Several shafts have been sunk and properly secured so as to drive levels on the course of the lodes, and the engine-shaft is at present 28 fathoms from adit, and 50 from surface. A new sett has been obtained from the lord of the soil at 1-18th dues, and this will be assigned to the purchaser.

Any information that may be desired will be furnished on application to Captain Hensley, at Marazion, who will show the workings; and any further particulars may be had of Mr. Wm. Richards, Chapel-street, Penzance, Cornwall.—Dated Feb. 20, 1851.

NORTH RIDING OF YORK.

VALUABLE FREEHOLD INVESTMENT, 7 miles from GAINSBOROUGH, STOCKTON, In the vicinity of the recent extraordinary discoveries of Ironstone.

MR. SINTZENICH is favoured with instructions to SELL, BY AUCTION, at the Royal Hotel, LEEDS, on Thursday, the 3d April, at One o'clock, a most valuable FREEHOLD ESTATE, known as

GERRICK FARM, 6

situate in the township of MOORSHOLM, having a substantial FARM-HOUSE and AGRICULTURAL BUILDINGS, comprising nearly 168 acres of capital LAND, well drained, let to an excellent tenant, at £160 per annum.

This desirable estate is situate in the immediate vicinity of the recent extraordinary discoveries of Ironstone and Coal, and it is more than probable that it possesses those valuable minerals: is tithe-free, and land-tax redeemed.

Particulars may be had at the place of sale; of J. P. Sowerby, Esq., solicitor, Stokesley; and of the auctioneer, No. 7, Lincoln's Inn-fields, London, who will give orders to view the property.

**EXTENSIVE IRON-WORKS AND MINERAL LEASES** FOR SALE, BY PRIVATE BARGAIN.—The BLAIR IRON-WORKS, belonging to the AYRSHIRE IRON COMPANY, situated in the parish of DALRY and county of AYR, consisting of TWO BLOWING ENGINES, FIVE BLAST-FURNACES, FOUNDRY, PIT ENGINES, and other requisite utensils for the furnaces and working the minerals, all in working order, besides nearly TWO HUNDRED WORKMEN'S HOUSES.

The extensive MINERAL FIELDS consist of BLACKBAND, IRONSTONE, COAL, LIMESTONE, and FIRE-CLAY, held under long leases, at moderate fixed rents and royalties, all in the immediate neighbourhood of the furnaces; and the works having a connection with the Ayrshire Railway, command greatfacilities for transit and shipping of the produce. There is a large STOCK of IRONSTONE on the ground, which may be had at a valuation, and considerable progress has been made in the

ERECTION OF MALLEABLE IRON-WORKS, 7

in connection with the furnaces, which may also be had.—The above are well worthy the attention of capitalists and parties in search of mineral fields.

For further information apply to Mr. Brown, 35, St. Vincent-place, Glasgow.

**A COLLIERY TO BE LET,** in the neighbourhood of BRISTOL, favourably situated for markets. The PROPERTY consists of 100 acres of COAL, TWO PITS, ENGINES, &c.—For further particulars apply to Alfred Davidson, Warmley, near Bristol. 8

**LAMB'S HOUSE QUARRY,** situate within two miles of NORTH DELABOLE, CORNWALL, and less than one mile from the shipping place, produces SLATE equal in quality to any hitherto discovered in Wales or Cornwall. The party now holding this Quarry is desirous of DISPOSING of ONE-HALF—that is, the person who may purchase a moiety shall have an equal share with the present lessee.

To prevent misunderstanding, no one need apply who is unable to command £1000. Apply to Mr. William Sloggatt, jun., Boscastle. 9

**CHEADLE COPPER AND BRASS COMPANY,** OAKAMOOR MILLS, CHEADLE, STAFFORDSHIRE.

In consequence of the decease of partners in the CHEADLE COPPER AND BRASS COMPANY, their extensive WORKS at OAKAMOOR are now TO BE SOLD, OR LET ON LEASE, for a term of years.

The WORKS are in FULL OPERATION, and will be continued by the surviving partners until an acceptable offer may enable them to retire. The quality of metals manufactured at these works is well-known in the home and foreign trade, and has secured a most valuable connection. 10

Further information may be obtained on application to Messrs. Ingleby, Wragge, and Ingleby, solicitors, Birmingham; Latham Hannor, Esq., solicitor, Liverpool; or Rupert Ingleby, Esq., Cheadle, Staffordshire; and the works can only be inspected by an order from either of these parties.

MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE MINING BROKER, OFFERS his SERVICES for the PURCHASE or SALE of MINING SHARES, and issues a daily Price Current, which may be had on application.

Mr. CROFTS acts exclusively for PRINCIPALS, and gives advice on contemplated investments, whether in dividend or speculative concerns—from the former of which an average income may be derived of 12½ to 15 per cent. per annum.

MR. CROFTS HAS SPECIALLY FOR SALE—

| | |
|---|---|
| Tincroft (20 shares) | Bodmin Wheal Mary (10 shares) |
| South Tamar (60 shares) | Wheal Tremar (10 shares) |
| East Tamar (20 shares) | Wheal Vincent (30 shares) |
| Wheal Providence (35 shares) | Bedford United (15 shares) |
| Appledore (50 shares) | Bodmin Consols (10 shares) |
| Woodman's Well and Broadridge | Great Wheal Sheba (5 shares) |
| West Seton (1 share) | Lamherooe Wheal Maria (10 shares) |
| Wheal Langford (100 shares) | Wheal Sarah (26 shares) |
| Wheal Harriet (100 shares) | Wheal May (50 shares) |
| | Wheal Fortescue (10 shares) |

4, King-street, Cheapside, March 14, 1851. 11

MR. J. H. MANDEVILLE, MINING AND GENERAL SHARE AGENT, *No. 22, CHANGE-ALLEY, CORNHILL.* 12

**MINING INVESTMENT.—T. FULLER AND CO.,** 48, THREADNEEDLE-STREET, LONDON, beg to call the attention of capitalists to mining property, as being the most safe investment, at the present moment in particular, an unprecented increase having already taken place in most dividend-paying mines. T. FULLER and CO. are in a position to BUY and SELL in all the dividend-paying mines, and also in new ones having present and prospective advantages, having the greatest chance of success, and will take pleasure in furnishing all particulars connected therewith, and have on hand the unappropriated shares in Appledore Silver-Lead and South Carn Brea Copper mines; these setts are decidedly in the best metalliferous districts in Cornwall, the former being parallel with Trelawny, Mary Ann, and other rich and dividend-paying Mines; and the latter being situate between Carn Brea, £15 paid, and worth £130; South Wheal Basset, £10 5s. paid, and worth £360; North Wheal Basset, and West Wheal Buller, opened only two years since, with £10 paid, and now worth £850, and paying £120 per annum in dividends. Application for the remaining shares to be made to the above offices, where plans and specimens may be seen. Mining shares will pay from 15 to 30 per cent. 13

**MINES.—MOLYNEUX & CO., 6, FINSBURY-PLACE** SOUTH, and 6, WEST-STREET, FINSBURY-CIRCUS, have SHARES FOR SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to capitalists the safest and most unexceptionable investment.—Office hours from Ten to Five o'clock. 14

**MESSRS. FRANCIS & LIGHTOLLER, MINING AGENTS** AND CIVIL ENGINEERS.

*OFFICE,—No. 34, EXCHANGE ARCADE, MANCHESTER.*

Messrs. FRANCIS AND LIGHTOLLER, may be CONSULTED by MINING COMPANIES or OTHER PARTIES requiring INSPECTIONS and REPORTS on MINES of every description, or by CAPITALISTS and OTHERS desirous of INVESTING their CAPITAL in MINES or other MINERAL PROPERTIES.

Statistics and other general information connected with Mines and the Mineral Districts given or obtained with the utmost dispatch. 15

Capt. Absalom Francis having had upwards of 30 years' experience in the practical management of mines, and reported on most of the principal ones in the United Kingdom, applicants may rest assured they will receive full and satisfactory information on matters connected with mining.

Arbitrators and contractors for the erection of every description of mining machinery.

**MINING AND RAILWAY OFFICES, No. 3, CASTLE-** TERRACE, EXETER.—Mr. JOHN JURY, RAILWAY and MINING SHARE-BROKER, OFFERS his SERVICES to CAPITALISTS in the PURCHASE or SALE of ANY DESCRIPTION OF PROPERTY; and will be happy to point out a selection of such stock as appear the most eligible, from data that can only be arrived at by those who give an undivided attention to the subject.—Every information afforded (either in person or by letter) to capitalists wishing to invest or exchange their securities, and sales or purchases effected upon the best terms, and at one-half the commission usually charged. 16

**MINING SHARES.—Mr. HENRY VATCHER, EXETER,** OFFERS his ADVICE and ASSISTANCE to PARTIES willing to INVEST in the ABOVE SECURITIES. Ten years' residence in Exeter, together with periodical visits to nearly all the Mines in Devon and Cornwall, enables him to become thoroughly acquainted with their respective merits.—Mr. VATCHER has at his command, at all times, practical and experienced agents, so that if any inspection is required, the same can be done without delay. 17

MR. BELL WILLIAMS, MINE BROKER and VIEWER, 16, *CASTLE-STREET, LIVERPOOL.* 18

MR. JOHN DAVIES, MINING SHAREBROKER, *No. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.* 19

**WOODMAN'S WELL AND BROADRIDGE CONSO-** LIDATED COPPER MINES,—NEAR LYDFORD, DEVON.

*ON THE "COST-BOOK" PRINCIPLE.*

In 2048 shares, of £1 each.

The following gentlemen have consented to act as a Committee pro tem.:—

THOMAS BIRCH, Esq., of Warwick-court, Holborn.
MICHAEL FITZGERALD, Esq., 102, Sloane-street, Chelsea.
C. V. BRIDGMAN, Esq., of Tavistock.

*Bankers*—The London and County Bank, London.
*Conductor of Mining Operations*—Adam Murray, jun., Esq.
*Purser*—C. V. Bridgman, Esq.

OFFICES pro tem.—No. 4, KING-STREET, CHEAPSIDE, LONDON. 20

These Mines (formerly Wheal Susan and Wheal Broadridge) are situated in the Woodman's Well and Broadridge Estates, the property of his Grace the Duke of Bedford and John Weeks, Esq., in the parish of Lamerton, Devon. They are 2 miles from Brentor and Lidford, and 2 miles north of the great productive copper mines of Wheal Friendship.

These mines were worked from March, 1845, to December, 1846, under the superintendence of Captain Jonathan Davey and Captain M. Stephens.

A sum amounting to upwards of £5700 was spent by the late company. A counting-house and smith's shop have been erected—the latter containing all the materials necessary for carrying on the works.

The copper ore alluded to in the subjoined reports was of good produce, and sold for £5 5s. per ton, when the standard was much lower than it now is; but just after this ore was returned, it was thought necessary to erect a steam-engine for the further exploration of the lode, unless the adjoining sett of Broadridge (which had been granted by his Grace the Duke of Bedford to another company) could be obtained; and the operations at Wheal Susan were consequently suspended.

An amalgamation of the two setts has now been accomplished, and the present proprietors have obtained the necessary assignments of both of them: they extend about 650 fathoms east and west on the course of the lodes, and 360 fms. average breadth north and south, and contain three copper lodes, two of which have been partially worked.

The following report (among many others) has been received from Evan Hopkins, Esq.:

WOODMAN'S WELL MINE.

*Feb.* 10.—This mineral property is situated on the south side of the River Lyd, about 2 miles north of the Great Wheal Friendship, at Woodman's Well, in the parish of Lamerton. The general character of the formation is a dark slate, with even grain, interstratified by beds of hornblende, and intersected by strings and massive quarts, spotted with copper ore.

The sett contains three lodes, running more or less east and west, and underlaying north, and these are intersected by some of the great Wh. Friendship cross-courses. One of the lodes has been tried to the depth of about 25 fathoms, and some tons of copper obtained; but in consequence of the expense attending the mode which was adopted to explore the lode, and finding the lode of a hard quartzose character, and only a few masses of ore, the mine was abandoned.

In such a formation as the above—viz., black sedimenting slate, resting on metalliferous ground, the ore is generally found dispersed in quartzose veins, and seldom in clear large masses; therefore, it becomes indispensibly necessary to adopt at the commencement an economical system of exploration and extraction to ensure favourable results. An adit should be driven on the course of the lode, wide enough to admit a narrow railway and waggons; by this means the lode may be explored at a considerably less expense, and if it should be found of a low value, the economical means of working may still render it profitable.

From the same adit the other lodes may be intersected by a cross-cut. In the event of any parties taking this sett, I would recommend them to confine their first operations, at least, to the above exploring adit; and if they do this, they will find the ground developed at a moderate outlay; and should the lodes only prove of a moderate quality, more may be done with them than with many of richer quality, carried on by a more expensive system.

EVAN HOPKINS.

*** About two-thirds of the shares are already taken, and more than the number that can be issued applied for. Applications will still continue to be received, and the preference given to respectable parties, who will receive a certificate receipt, on application to Mr. James Crofts, 4, King-street, Cheapside, London.

**PATENT IMPROVEMENTS IN CHRONOMETERS,** WATCHES AND CLOCKS. 21

E. J. DENT, 82, Strand; 33, Cockspur-street; 34, Royal Exchange (clock tower area), Watch and Clock Maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

**TO CAPITALISTS.—A highly favourable opportunity now** offers of EMPLOYING a sum of about FIFTY THOUSAND POUNDS in acquiring an INTEREST in IRON-WORKS of first-rate importance, most eligibly situated, and of ascertained and well-established capabilities.—Further particulars may be obtained by principals only), on application to Messrs. Johnston, Farquhar, and Leech, No. 65, Moorgate-street, London. 22

**TO LAND SURVEYORS AND DRAFTSMEN.—** WANTED, by a Land Surveyor, who has a connection of 50 years' standing, a PERSON who can fill the ABOVE DEPARTMENT; but as the latter branch is most important, none need apply who does not excel as a draftsman. References as to character and ability must be unexceptionable,—Apply to "Box 22," Post-office, St. Helens, near Liverpool. 23

**TO GASHOLDER-MAKERS, IRONFOUNDERS, AND** OTHERS.—The DIRECTORS of the COMMERCIAL GAS COMPANY will meet at the Company's Offices, Stepney, on Monday, the 24th inst., at Two o'clock, to RECEIVE TENDERS for the ERECTION of a TELESCOPE GASHOLDER, 102 feet diameter, with the COLUMNS, GIRDERS, &c.—TENDERS will also be received to TELESCOPE one 80-ft. GASHOLDER, now on the Company's works.

Plans and specifications can be seen, and particulars obtained, on application at the Company's offices, on and after the 13th inst.—Tenders, sealed [illegible] "Tender for Gasholder," addressed to the Secretary, must be delivered [illegible] o'clock on the 24th inst. Parties tendering, or their agents, to be in attendance at Two o'clock on the said day.—The Directors do not bind themselves to accept the lowest tender.

Stepney, March 4, 1851. By order of the board, G. JAQUES, Secretary. 24

**TO PLUMBERS, TIN-PLATE MANUFACTURERS, &c.** —SHARES of a VALUABLE PATENT, connected with, and important to, Persons engaged in these and other analogous branches of business, to BE DISPOSED OF. Address "S. D. M." at the office of the *Mining Journal*, 26, Fleet-street, London. 25

**TO MUNDIC BUYERS.—FOR SALE, a QUANTITY of** SULPHURIC and ARSENICAL MUNDIC, at CALSTOCK CONSOLS MINES, on the Tamar River.—A CARGO of the SAME is now on the Quay of the Mine: vessels of 200 tons can lay alongside of the Quay to load.—Apply on the mine, or to Mr. W. B. Collom, 4, Nottingham-place, Plymouth. 26

**BARYTES.—Any PARTIES having MINES or LOTS of** CARBONATE or SULPHATE to DISPOSE OF, may hear of a PURCHASER by addressing, with full particulars (free of postage), "Q. R. Z.," Post-office, Manchester. 27

**TWO STEAM-ENGINES TO BE SOLD, on the HORI-** ZONTAL PRINCIPLE, strong made—one 6 and one 12 horses power—at JOHN ELLIS, Jun., and BROTHERS, 15, Back Water-street, MANCHESTER. 28

MR. J. C. NESBIT, F.G.S., F.C.S., CONSULTING AND ANALYTICAL CHEMIST.

*LABORATORIES, 38, KENNINGTON-LANE, LONDON.* 29

Mr. NESBIT gives PRIVATE INSTRUCTIONS in CHEMICAL ANALYSIS, and may be consulted on subjects connected with the Composition, Working, or Assaying of Minerals.—Analyses of Minerals, Slags, Soils, Manures, &c. &c., performed as usual, on moderate terms.

**PROPRIETORS OF MINES and OTHER INTERESTS** requiring CAPITAL, and desirous of FORMING JOINT-STOCK COMPANIES, are invited to apply to Mr. J. H. FAGAN, 11, WARNFORD-COURT, THROGMORTON-STREET, who will give the benefit of a long experience in the formation of Joint-Stock Companies, at the most moderate charges, thereby *saving* companies the large outlay in preliminary expenses, hitherto unnecessarily incurred.—Office hours, Twelve to Three. 30

**KINZIGTHAL MINING ASSOCIATION.—Notice is hereby** given, that all SHARES upon which the CALLS of FIVE SHILLINGS, due 21st January, 1850, and FIVE SHILLINGS, due 25th September, 1850, REMAIN UNPAID after the 22d inst., will become ABSOLUTELY FORFEITED.

1, Adelaide-place, March 6, 1851. GEORGE COPELAND CAPPER, Secretary. 31

**KINZIGTHAL MINING ASSOCIATION.—Notice is hereby** given, that the FOURTH ANNUAL GENERAL MEETING of this Association will be HELD here on Tuesday, the 8th April, at One o'clock precisely.

By order of the board,

1, Adelaide-place, March 10, 1851. GEORGE COPELAND CAPPER, Secretary. 32

**UNION TIN SMELTING COMPANY.—Notice is hereby** given, that the HALF-YEARLY GENERAL MEETING will be HELD here on Wednesday, the 9th day of April next, at Two o'clock precisely, when the statement of accounts and the Company's affairs will be submitted. P. WATSON, Secretary.

Salvador-house, London, March 8, 1851. 33

**REGISTRY FOR THE SALE AND PURCHASE** OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 58, LOMBARD-STREET, LONDON.

Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES.

SHARES FOR DISPOSAL.

| | | |
|---|---|---|
| Devon Great Consols | Wheal Mary Ann | South Caradon |
| Carn Brea | Wellingtons | Great Wheal Sheba |
| West Caradon | West Buller | Treviskey |
| Trelawny | Tolgus | Bedford United |

N.B.—Statistical information furnished on British and Foreign Mines.—No CHARGE made for the registration of shares unless business be transacted. 34

**MINING OFFICES, ST. MICHAEL'S CHAMBERS,** *ST. MICHAEL'S-ALLEY, CORNHILL, LONDON.*

Mr. R. TRIPP, MINING AGENT, is instructed to BUY and SELL in the best DIVIDEND MINES—including Devon Great Consols, Treviskey and Barrier, Wheal Reeth, North Pool, Wheal Margaret, South Tolgus, Levant, Alfred Consols, Wheal Tremayne, Wellington, Bedford United, &c. Also in the following, having present and prospective advantages:—Bodmin Consols, Bodmin Wheal Mary, Hennock Lead, East Wheal Reeth, Wheal Arthur, Penzance Consols, Carthew, Wheal Langford, Langmaid, Wheal Crebor, Trelyon Consols, Wheal Carpenter (Gwinear), Merlyn, Cwm Erfin, Russell, East Russell, Penhale, &c. 35

MR. GEORGE CARNE, 28, THREADNEEDLE-STREET, AGENT for the PURCHASE and SALE of SHARES in MINES, RAILWAYS, and JOINT-STOCK COMPANIES.—BUSINESS transacted in the following MINES:—Devon Consols, Wheal Trelawny, Wheal Mary Ann, Calstock United Mines, Devon and Courtenay, Warleggan Consols, Penzance Consols, Tavy Consols, Crebor, North Wheal Robert, United Mines (Tavistock), Spearne Consols, Borringdon Park, Treviskey and Barrier, Tincroft, and Wheal Augusta.—RAILWAYS: South-Eastern, South Devon, Blackwall, and Ambergate.—JOINT-STOCK: Devon and Cornwall Bank, North British Australian Loan, ditto Preference. 36

MESSRS. BOXALL & CO., MINING SHARE DEALERS, *5, CROSBY HALL CHAMBERS, BISHOPSGATE-STREET.* 37

MESSRS. TREVARTON AND CO., MINING SHARE DEALERS AND BROKERS,—*5, ST. JAMES'S-STREET, PALL-MALL.* 38

MR. R. C. MANUEL'S MINING OFFICES REMOVED from No. 42, Fish-street-hill, to No. 26, AUSTINFRIARS, where all communications are requested to be addressed.—March 7, 1851. 39

MR. JOHN CREFT, MINING SHAREDEALER, No. 1, ROYAL EXCHANGE BUILDINGS, LONDON, has on hand FOR SALE—West United Hills, North Basset, Wheal Franco, Peter Tavy and Mary Tavy, South Carn Brea, Bolanos, Swan Pool, Devon and Courtenay, and several other valuable mine shares. 40

MR. W. BIRDSEY, MINING AGENT, begs to acquaint his Friends and the Public, that he has OFFICES at No. 1, ST. MICHAEL'S-ALLEY, CORNHILL, and takes this opportunity to thank them for the favours he has hitherto received. From an extensive experience in MINING PROPERTY, in which he has been engaged upwards of 20 years, Mr. Birdsey flatters himself he will be enabled to give much general information—he having personally visited most of the mines in Cornwall.—Mr. BIRDSEY trusts, by strict attention to the interests of those who may honour him with their confidence, to merit a continuance of their orders. 41

**WHEAL MAY MINING COMPANY.—Notice is hereby** given, that UNLESS the ORIGINAL CERTIFICATES of SHARES in the above Company, numbered as hereunder given, are REGISTERED in the NEW COST-BOOK by the holders thereof, on or before the 25th day of March next, in pursuance of resolutions passed at the General Meetings of the said Company, on the 27th September, 1850, and the 20th February, 1851, the same will be FORFEITED. The Company are prepared to accept 40 per cent. of such outstanding certificates, in lieu of the two first calls of 5s. each, on registration of the remainder; that is to say, seven old certificates will represent two (1024ths) consolidated shares, with the first and second calls paid thereon.

The following are the Numbers of unregistered certificates:—

2580, 3110, 3256, 59, 60, 72, 91 to 3290, 3302, 3, 5 to 8, 10 to 13.
17 to 23, 26 to 31, 34 to 40, 42 to 44, 63, 79.
3428, 31, 39, 40, 70, 72 to 76, 80, 83, 85, 97, 98.
3520, 23, 24, 48, 49, 58, 86 to 91, 94, 95.
3608, 11, 24 to 29, 35, 37, 38, 62.
3891 to 3899, 3900, 3, 4, 5, 70 to 79, 99.
4171, 72 to 80.

HENRY PEEL, Secretary.
15, Old Broad-street, London, March 4, 1851. 42

# Transactions of Scientific Bodies.

*MEETINGS DURING THE ENSUING WEEK.*

| | | | |
|---|---|---|---|
| THIS DAY | Asiatic—5, New Burlington-street | 2 | P.M. |
| MONDAY | Statistical, 12, St. James's-square | 3 | P.M. |
| | Chemical—142, Strand | 8 | P.M. |
| TUESDAY | Linnæan—Soho-square | 8 | P.M. |
| | Horticultural—21, Regent-street | 2 | P.M. |
| | Civil Engineers—25, Great George-street | 8 | P.M. |
| | Pathological—33, George-street, Hanover-square | 8 | P.M. |
| WEDNESDAY | Society of Arts—Adelphi | 8 | P.M. |
| | Microscopical—21, Regent-street | 7 | P.M. |
| | Ethnological—17, Saville-row | 8 | P.M. |
| THURSDAY | Royal—Somerset-house | 8½ | P.M. |
| | Antiquaries—Somerset-house | 8 | P.M. |
| FRIDAY | Royal Institution—Albemarle-street | 8½ | P.M. |
| | Philological—London Library, 12, St. James's-square | 8 | P.M. |
| SATURDAY | Medical—33, George-street, Hanover-square | 5 | P.M. |
| | Royal Botanic—Inner Circle, Regent's-park | 3¾ | P.M. |

## GEOLOGICAL SOCIETY.

Papers read at the above society on the 12th Feb. were:—1. On the Fossil Plants of Scarborough, by C. J. F. Bunbury, Esq., For. Sec. G.S.—2. On the Structure of the Calamite, by J. S. Dawes, Esq, F.G.S.—3. On Upright Calamites, occurring near Picton, by J. Dawson, Esq.

## INSTITUTION OF CIVIL ENGINEERS

MARCH 11.—WILLIAM CUBITT, Esq. (president), in the chair.

The paper read was "a Description of the Mode of Working an Inclined Plane, of 1 in 27½, on the Oldham Branch of the Lancashire and Yorkshire Railway," by Capt. J. M. Laws, R.N., Assoc. Inst. C.E.

The mode of working this incline was by a combination of locomotive-power and gravity. It was at first proposed to be worked by a horizontal wheel, rope, and pulleys, with a locomotive engine and train at each end of the rope, so that one train might descend while another ascended the incline; but as this method appeared to be liable to many contingencies, by which the regular traffic would have been deranged, and the expense of locomotive-power increased, a balance weight was substituted for the descending locomotive, one line of rails being appropriated to it, and the other retained for the goods and passenger traffic. The balance weight consisted of a heavy break van, and a number of ballast waggons filled with sand; but in place of the latter, loaded coal waggons were frequently used, as there was a coal pit at the top of the incline, and this was found to be a most economical and advantageous way of working the coal traffic. When the bill was in Parliament, it was stated in evidence that there would be a great danger in descending so steep an inclination; but the experience of seven years—during which period the rope had broken several times, and the break van had once been allowed to run down by itself, without doing any serious injury, had proved this opinion to be erroneous. The ordinary passenger trains ascended and descended the incline at from 20 to 25 miles per hour, the mode being to stop at the foot of the incline to attach the rope, then back the engine so as to draw the balance train off the scotch at the top, when the steam was put on, and the train ascended. This mode of working had been attended with the most perfect success, and it was thought, that if more attention was paid, in the construction of railways, to what could be accomplished by gravity and impetus, in combination with locomotive-power, a great saving in the original cost of the line would be the result.

The wire ropes which had been used were manufactured by Messrs. R. S. Newall and Co.; each rope was rather more than 1¼ mile in length, 3½ in. in circumference, weighing 126 cwts., and costing 316*l*. Their average duration was about two years and four months.

The following paper was announced to be read at the meeting of Tuesday, March 18:—"Account of the Sea Walls at Penmaen Mawr, on the Line of the Chester and Holyhead Railway," by Mr. H. Swinburne.

*A Popular Narrative of the Origin, History, Progress, and Prospects of the Great Industrial Exhibition of* 1851. By PETER BERLYN. London: James Gilbert, Paternoster-row.

This little volume, which unostentatiously treats on the highly interesting subjects indicated in the above title, is based on records of unimpeachable character, and testimony of an unexceptionable nature. All speculation has been wisely avoided, and its pages present an unvarnished history of one of the most extraordinary undertakings which the history of the world can boast; extraordinary in the fact of the people of this little island challenging the population of the universe to meet on its shores, with specimens of their several productions and industry; and extraordinary in the magnitude, splendidly novel, and inconceivably rapid erection of the building for their reception. The history of every description of similar exhibition is traced back to its source; those of Manchester, Birmingham, London, and France are minutely recorded, the growing interest which followed every subsequent exposition statistically described, and every detail connected with the Royal Commission, the arrangements, the building, future rules, throughout a space of nearly 200 pages, and finishing with a list of the local committees, conveys a vivid and correct picture of this vast national undertaking.

CURIOSITY FOR THE GREAT EXHIBITION.—Amongst the many works of art and ingenuity called into existence by the Exhibition, we have seen one which, as a curious piece of workmanship, is unique. It is a perfect and well-finished gun, of not more than 4½ inches long, and weighing only ¼ lb. It is a single-barrelled percussion, has all the modern improvements, and is capable of being loaded and fired with the utmost accuracy. The stock is of maple, and the barrel is twisted; and although the gun is yet in a partially unfinished state, the various portions of the furniture are to be tastefully engraved. It is in the lock, however, that the greatest difficulty had to be surmounted. A percussion lock is composed of no less than 15 separate pieces, and in the case of this diminutive specimen, some of these are so small as to be almost imperceptible without the aid of a glass. Altogether the little piece is a singular specimen of ingenuity as the work of one man, especially when it is considered that gun making is divided and sub-divided into upwards of a dozen distinct and separate trades, and that there is not one workman in 100 knows anything whatever of any of the branches but his own. This tiny gun is the workmanship of Mr. Thomas Griffiths, gun maker, Wednesbury, and is intended for the Exhibition.—*Birmingham Journal.*

MECHANICAL WONDER.—Mr. M'Crackan, of Warwick, intends to send to the Great Exhibition a new mechanical propelling engine, from six to eight horse-power, to supersede steam-power, whether stationary, locomotive, or marine; and the inventor believes that it will, to a great extent, supersede horse-power on common turnpike roads. It requires neither coal, air, nor any chemical compound to give the power; has neither funnel, boiler, condenser, tank, nor tender, and appears very unlike any machine hitherto invented. The expense of the engines will be less than those of steam; the cost of working them will not be a 20th part, and a much greater amount of speed may be obtained by them than by the best steam-engines now in use. Made partly by engineers, and partly by whitesmiths, at Birmingham, Warwick, Leamington, and other places.—*Warwick Advertiser.*

LARGE STEAM-WHIM.—Mr. J. Glynn, in Weale's *Rudimentary Treatise on the Construction of Cranes*, gives the following interesting notice of a whim which has been erected by the Butterley Company:—"A company of gentlemen having recently sunk a pit to the depth of 220 yards, at Cinder-hill Colliery, near Nottingham, with some difficulty and much expense, found coal of good quality and ready sale; and, being desirous to meet the demand in the market without sinking additional pits, they applied to the Butterley Company to furnish them with such an engine as might raise what coal they could sell. The author was desired to make the requisite calculations, and to prepare such plans as should effect this object. He found that it would be necessary to draw from this depth a ton of coal in every successive minute for 10 hours a day; that the coal should be brought up in two of the small underground waggons, to be unloaded 'at bank,' each of which contained half a ton; and that, in order to allow time to land each load and to reverse the engine, it was requisite to bring up the ascending 'cage' as fast as the descending one would with safety and certainty go down. Taking into account the resistance of the air and the friction of the 'guides,' it was not considered prudent to attempt a speed greater than 16 ft. in a second. A heavy body, unchecked by the friction of slides or guide-rods, falls about 16 ft. in the first second; but as the engine, when reversed, does not immediately regain full speed, it permits the requisite acceleration of the falling or empty cage, which descends as the full one rises. The weight of the flat rope, the friction of the cage, and the weight to be drawn at such a speed, rendered it necessary to construct a non-condensing steam-engine of 200-horse power. The result was quite successful; and, in the collier's week of five days, or 50 hours' work, 3000 and sometimes 3500 tons of coals are raised with ease. Much more than this is performed at several of the collieries in the counties of Northumberland and Durham, where engines of great power are employed at larger pits." From the excess of the power here mentioned, over the nett weight raised, we assume the 200-horse power to be indicated, not nominal horse-power, which it would be as well to mention. If this supposition be correct, the engine would probably be 100-horse nominal power. Mr. Glynn states that the power which may be estimated as the fair average of a labourer's work, is less than is commonly supposed. Mr. J. Walker, in works at Sheerness, found that the average for 10 hours' work was only 14 lbs. at a winch, moving at 220 ft. per minute, or about 1-11th that of a horse. His own experience gives 15 lbs., although a man for a short period may exert a force of 25 lbs. The barbarous turnspit cranes, borrowed from the Dutch, and so dangerous to the men inside, may still be seen at some of the wharves in London. Considering the success which has attended the application of steam-power to lifting coals, as exemplified in Messrs. Blyth's and Messrs. Summers and Co.'s machinery, we are surprised that our great dock companies have not taken up the subject of discharging ships' cargoes by steam-power. The application of M'Nicholl and Vernon's patent steam travelling cranes to unloading timber vessels at Hull, will, we hope, lead to the further extension of the principle.

# Proceedings of Public Companies.

## NEW BRUNSWICK AND NOVA SCOTIA LAND COMPANY.

The annual meeting of this company was held at the offices, in Copthall-court, City of London, on Thursday, the 13th inst., on the general business of the company. JOHN MOXON, Esq., in the chair.

The following report was read to the meeting:—

DIRECTORS' REPORT.

On reference to the Stanley balance-sheet of 1850, it will be observed that the ordinary expenditure for the year (excluding the loan and balance against the company of 1849, and the credits to settlers advised from the London office) has been reduced to 572*l.* 7s. 5d., currency, equal to 476*l.* sterling; and it will be recollected that the directors resolution of February, 1849, had strictly limited the annual expenditure at Stanley for that year, with further prospective limitations in future years. The very strict economy exercised has also come into full effect in London. The ordinary expenditure for the year (excluding Capt. Haynes' draft of 120*l.*) having been reduced to 197*l.* 14s. 5d., instead of 250*l.* as estimated in the report of last year. According to Capt. Haynes' estimates for 1851, and his annual report, which are now before the meeting, the expenditure at Stanley will be limited to 475*l.*, while the receipts are estimated at 705*l.* Should the latter be realised, as Capt. Hayne confidently expects, in which the directors are also inclined to concur, they trust that the surplus at Stanley for 1851 will be sufficient to cover the expenditure at Stanley and in London. Under the present circumstances of the company, it will be observed, in reference to the cash account, that the payment of directors' fees has been suspended in 1850, as they also were in the preceding years. During the past year the business of the province revived in all branches; the harvest was excellent, and its abundance was generally enhanced by the intelligent and persevering efforts which have been made throughout the province to direct the attention of the people to the great agricultural capabilities of the country. The affairs of the company have participated in some degree in the general improvement, as will be observed upon comparing the receipts at Stanley for the past three years under the principal heads—viz.:

| | 1848. | 1849. | 1850. |
|---|---|---|---|
| Timber | £191 | £231 | £297 |
| Land and rent | 289 | 348 | 365 |

The sales of land, and sale values, have been—

1848—2869 acres, for 676*l.* 19s., equal to 4s. 8½d. per acre.
1849—2568 acres, for 608*l.* 14s., equal to 4s. 8¾d. per acre.
1850—5286 acres, for 1348*l.* 5s., equal to 5s. 1d. per acre.

According to Capt. Haynes' official statement the arrears of instalments due upon land sold since the incorporation of the company is 5298*l.* 10s. 3d. currency. For a lengthened statement on this subject, which attracted the especial notice of the proprietors, at their annual meeting last year, the directors refer to Capt. Haynes' report for 1850, by which it will be observed that the position and condition of occupiers with reference to the owners and to the arrears due to them is a matter of constant interest and attention with the provincial authorities, as well as with the stockholders of this company in particular. The quantity of acres still remaining unsold of the tract is 523,230. The grants made by the House of Assembly in the session of 1850 were 300*l.* for main roads, and 150*l.* for bye roads within the tract. The sum which this company (following the example of several societies in the province) has distributed during the last three years in agricultural prizes, has (together with the conviction which has become general, that the main reliance ought to be on the produce of the land more than upon the trade in timber) produced very satisfactory results both to the settlers and to the company. The following returns of produce and other particulars relating to the farms of the competitors for prizes are extracted from the highly intelligent reports communicated by the judges—viz.:

1849—16 competitors.

| | | |
|---|---|---|
| Wheat | *Acres* | 7½ |
| Buck-wheat | ,, | 31½ |
| Oats | ,, | 86½ |
| Barley | ,, | 4 |
| Rye | ,, | 2½ |
| Corn and peas | ,, | 5½ |
| Potatoes | ,, | 27½ |
| Turnips | ,, | 9½ |
| Hay | *Tons* | 124½ |
| Cattle | | 109 |
| Horses | | 24 |
| Sheep | | 200 |
| Pigs | | 70 |
| Cleared land | *Acres* | 863½ |
| Ploughed ditto | ,, | 136½ |

1850—17 competitors.

| | | |
|---|---|---|
| Wheat | *Acres* | 18 |
| Buck-wheat | ,, | 37½ |
| Oats | ,, | 92½ |
| Barley | ,, | 2½ |
| Rye | ,, | 3½ |
| Corn and peas | ,, | 8½ |
| Potatoes | ,, | 31½ |
| Turnips | ,, | 14½ |
| Hay | *Tons* | 166½ |
| Cattle and calves | | 105 |
| Horses and colts | | 22 |
| Sheep | | 150 |
| Pigs | | 65 |
| Cleared land | *Acres* | 877½ |
| Ploughed ditto | ,, | 178½ |

From these returns, which relate only to the competing parties, it will be concluded that a considerable body of settlers are now well established upon the company's tract; and that after some years passed in cultivation and improvement, the farms are severally of considerable value. Capt. Haynes' letter of the 12th August confirms these conclusions, as he states with reference to the settlers generally, and not to the competing parties, that the crops of the season were remarkably fine, and that the crops of the preceding year were not yet exhausted. Some progress has been made in the course of the last 12 months in public works at New Brunswick, a branch of the electric telegraph having been completed from Fredericton to St. John, to join the main line from Halifax to the United States; some preliminary measures have also been taken towards the projected line of railway through Nova Scotia and New Brunswick *viâ* St. John, by public meetings, held at Halifax and St. John, and in the State of Maine. These meetings were numerously attended, and were also supported by deputations from the Canadas; and there is reason to believe that the commencement of this work will not be delayed beyond 1852. Although this line would open a communication in the first instance between Halifax and Montreal by way of the United States, yet the first portion of it—viz.: 140 miles between Halifax and the bend of Petticodiac—will also form about one-fifth of the direct line; and the directors opinion, strengthened by recent discussions in the Upper House of Parliament, continues to be that a main British line of railway connecting the important port of Halifax with the Canadas, by way of the province of New Brunswick, will before long become an object of great public interest, and that some general combination will also take place with a view of carrying it out. The directors beg leave further to report, that the following directors and auditor go out of office this day by rotation—viz.: John Moxon, Thomas Perham Luxmoore Hallett, Samuel Eustace Magan, and James William Ogle, Esqrs.; and Henry Bruce, Esq., auditor, all of whom being re-eligible, offer themselves accordingly. Notices have been received at this office of the intention of stockholders to propose that George D'Olier Gowan, Esq., be elected in the place of Richard Godson, Esq., M.P., deceased; and that Charles Lewis Meryon, Esq., be elected in place of Thomas Potts, Esq., who has resigned.

Some discussion took place at the instance of a proprietor, who had been formerly resident for some years in New Brunswick, relative to the arrears of instalments due on land sales; and the usual resolutions having been passed, for receiving the reports and balance-sheets for the year 1850, the meeting separated.

RAILWAY PASSENGERS' ASSURANCE COMPANY.—At the third half-yearly general meeting of this company, the report showed a satisfactory progress in the business of the company. The receipts for the last half-year amounted to 2531*l.* 1s. 11d., while in the previous half-year they were 2087*l.* 0s. 4d. The number of claims on the company up to this date are two fatal cases, insured for 500*l.* each, and 55 cases of personal injury. Although shareholders might be better pleased to have no accidents at all, this enumeration is a convincing proof of the benefits of the company. So far as the public are concerned, it partakes more of the nature of a benevolent institution, while, from its financial progress, it promises to justify the confidence reposed in it by the shareholders. The contingency to be provided against is, it is true, of rare occurrence; but this constitutes no objection to the operations of the company, because that contingency affects millions of the population, is severe when it does occur, and is met by a most trifling contribution.

BANKERS AND MERCHANTS' TIME RECKONER.—A very useful table has just been published by Mr. Pocock, of the Bankers' Clearing-house, for ascertaining the number of days between any two dates in any single year, or in two consecutive years. From the 1st January to any date within two years, the number of days is seen at a glance: from an earlier to a later date in the same year, it is only necessary to subtract the number opposite the former from that opposite the latter, and the remainder is the answer required; and for ascertaining the number from any date in one year to a certain day in the next, the number opposite the later date must be subtracted from 730, and from that remainder must be taken the number opposite the earlier date, which will give the answer. One, of course, must be added in leap year, after Feb. 28. It is printed in good type, on a sheet of card-board, and will save much time in the calculation of interests and discounts.

ROTARY BOOT AND SHOE CLEANER.—A simple apparatus has been registered by Mr. Young, of Stokeleigh Pomeroy, Devon, for facilitating the polishing boots and shoes; it consists of a pair of circular brushes, a hard and a polishing one, mounted on an axis, and worked by a treadle, acting on a large driving wheel, which causes the brushes to rotate with a very rapid motion. Having cleansed the boot or shoe from all dirt by the hard brush, the blacking is applied by hand in the usual manner, and on placing every part in contact with the rapidly revolving polishing brush, a high degree of polish is obtained in one quarter the time employed by the common method. For hotels and large establishments, such an apparatus must prove a great desideratum.

LIQUID LEATHER.—Dr. Burland, of Larria, in Germany, is said to have discovered a method of making leather out of the waste refuse of animal substances. He has established a manufactory near Vienna. No part of the process is explained, but it is stated that the substance is at one stage in a state of fluidity, and may be cast into boots, shoes, &c. Such a discovery is not improbable.

CONSETT IRONWORKS.—The Consett Ironworks are sending to the Exhibition, in striking contrast to the Swiss pencil-case having for its "seal" a lady's watch, the following monster contributions:—1. A railway plate or rail, 66¾ ft. long, and weighing 17 cwts. 1 qr. 26 lbs., or 85 lbs. per yard.—2. Plate for iron ship, 20 ft. long, 3½ ft. broad, and 7-16ths of an inch thick: weight 11¼ cwts.—3. Beam for marine engine, 17 ft. 2 in. long, 4 ft. 8 in. extreme breadth, 1½ in. thick, weight 25 cwts.: each piece is stamped—"Consett Ironworks.—George Forster, Manager."—*Gateshead Observer.*

A WEAKNESS OF THE CHEST AND ASTHMA CURED BY HOLLOWAY'S PILLS.—Copy of a declaration of Mr. C. Zeitsen, of Nymegen, in Holland, dated 20th January, 1850:—"I, the undersigned, declare that I have been perfectly cured of a weakness of the chest and difficulty of breathing, by the use of Holloway's pills. I had been a sufferer for years, and was unable to get the least relief from the various remedies I tried, until I took these inestimable pills; and I invite all who may be similarly afflicted to use the same remedy without delay.—Signed, C. Zeitsen." They may be taken in all cases of old coughs, colds, and asthmatical affections.—Sold by all druggists, and at Prof. Holloway's establishment, 244, Strand, London.

43

## IMPROVEMENTS IN MINE MACHINERY.

Mr. Daniel Erskine, of Edinburgh, writing to the Glasgow *Practical Mechanics' Journal*, says—"As I have recently seen several improvements in this class of mechanism, I shall, perhaps, not presume too far upon your attention by giving you an outline of my own arrangements of this nature, as prepared several years ago. According to my plans, for which the Royal Scottish Society of Arts awarded me their 30*l.* Keith gold medal in 1845, 'overwinding' is rendered impossible. The full corve or waggon is taken from the pit-mouth, and run down an incline plane to the attendant placed at a distance from the shaft, and the empty corve is run up the incline, and sent down the shaft, entirely by mechanical appliances. A drawing and description of my plan will be found in the published *Transactions* of the Society for the year 1845. I annex a copy of the Society's report:—

Mr. Erskine states that the object of his improvement is to prevent the ropes of coal pit engines from being overwound, and to prevent the many accidents occasioned by the buckets being carried over the pulleys; and also to remove the attendants from the mouth of the pit.

The engine and machinery invented by Mr. Erskine for these purposes not only accomplish what was intended, but do so in the simplest and most efficient manner; and the means by which each separate operation takes place is, in itself, simple; and the peculiar movement employed for each purpose is one of the most judicious that could be selected.

The committee are also of opinion that many of the contrivances display originality, and that Mr. Erskine possesses ample mechanical resources.

That, as a whole, it is a mechanical composition of no ordinary merit; and that the beautiful working model is produced in a degree of perfection and maturity not often to be met with in similar contrivances.

The engine is self-acting, and, after winding the bucket or waggon from the bottom of the shaft, by a simple and ingenious mechanism, it is carried some yards from the mouth of the pit. By a second very ingenious contrivance the steam is shut off, and the engine stopped or reversed; by which means, those most distressing accidents that occur from overwinding would be greatly diminished, if not altogether prevented, and the great expense consequent upon the damage done to the machinery, and the stoppage of the works during repairs, would be completely saved.

We, therefore, consider Mr. Erskine's new method of taking the buckets from the mouth of coal-pits, and shutting off the steam from the winding-engine, as peculiarly a subject suited to the purposes, and deserving the marked encouragement of this Society.—GEORGE GLOVER, Convener: *Edinburgh, June* 23."

## A NEW LIGHT.

We stated, some time since, that certain very important improvements were in progress, connected with the subject of artificial illumination; and we have now to observe, in reply to the inquiries of numerous correspondents, that we are not yet in a position to afford particulars as to the character of these improvements, or even the precise nature of the invention to which they refer. Suffice it to say, that so soon as the necessary protective arrangements have been completed, our readers shall have the fullest information upon the subject in question; and we flatter ourselves that the highly important applications of practical science which that information will comprise will be found fully to justify the weight and unquestionable value which we attached to these improvements in our original announcement.

THE WATERS OF THE RHINE AURIFEROUS.—Letters from Paris say,—"M. Daubrée, engineer of the mines of France, and professor of the Academy of Strasbourg, has recently analysed a quantity of sand on the banks of the Rhine, and has found that its auriferous riches vary from 1-000,000 to 1-1000,000. He estimates that the total value of the gold on the French banks of the Rhine, from Bâle to Wissembourg, may be reckoned at 166,000,000 francs; but this must surely be a great exaggeration."

ROCKY BAR MINING COMPANY.—The directors of this American company have just presented a report to their stockholders. After alluding to the produce and cost of mines in Mexico, Saxony, &c., they state that their mines at Mariposa, Yuba, at Grass Valley, and on the northern and southern forks of the American River, near Auburn and Caloma, fully justify all the anticipations that have been raised: 40 tons would be 80,000 lbs., at 20 cents nett proceeds; $16,000 per day, or $4,800,000 for 300 working days, allowing $800,000 for working expenses, which would leave a profit of 400 per cent. Machinery has been erected for the crushing of quartz, and no doubt was entertained that in a few weeks the reports would show profitable returns for the outlay of capital.

CALIFORNIA.—From San Francisco the accounts are to 14th Jan. One of the Sacramento journals states that the Mariposa quartz workings were turning out exceedingly rich in gold; one party, with 12 stamps of 250 lbs. each, in the first seven days, made $18,000 in gold dust, and since that they have paid 19 per cent. per month. Another wild story has got wind, that the mouth of the Klamoth River, on the shores of the Pacific, is a perfect Pactolus. For 27 miles, it is said, there is a beach bounded by a high bluff, which yields gold in immense quantities. The discoverers have formed themselves into a company, and on measuring an average patch of this sand, the share for each member of the company is estimated at the moderate value of $43,000,000. The *Weekly Placer Times* states that some of the adventurers had returned, bringing specimens—that a meeting of the shareholders was held, and that it was resolved to send up 100 labourers to gather the precious metal; which, however, is said to be inexhaustible by thousands of men in thousands of years.

QUICKSILVER MINES OF CALIFORNIA.—About 180 hands are here employed. The expenses are about $40,000 per month, and the yield of quicksilver about 7500 lbs. for the same period.

GOLD IN QUARTZ.—We had the pleasure this morning of a call from our friend, Mr. G. Pearson, who came down on the Kenebec from Yuba City last night. He has with him 300 lbs. specimens taken from a quartz vein at Tolls' dry diggings, 40 miles from Marysville: they are taken from different points on the claim, and have been proved to average 37½ cents. per lb. A company has been organised at San Francisco to operate upon this discovery; and it has already under contract 12 machines for crushing the rock, with hammers of 600 lbs. weight each, with an engine of 20-horse power. With this force it is calculated that 20 tons will be crushed daily, at a cost of 5 cents per pound and yielding a net profit of 32½ cents, or from $10,000 to $13,000 per diem The capital stock of the company is $300,000—1000 shares, on which $100 is to be paid in cash—the balance, $200, from the first dividends accruing. Specimens of the rock may be seen at our office. Agencies will soon be established for the disposition of shares in this city.—*Placer Times, Jan.* 14.

A CALIFORNIA SPECIMEN.—The *Placer Times* of the 14th January says—"A splendid specimen of a California gold chain was worn by a gentleman of this city yesterday, in making his New Year calls, and for aught we know to the contrary, it may be worn every day; but we judge that the gentleman's legs would be unable to support this extra weight, and, therefore, suppose it is used only upon extraordinary occasions, as yesterday may certainly be regarded as such. The chain in question weighs 4 lbs. troy, lacking 1½ oz."

ADVANTAGES AND DISADVANTAGES OF GOLD MINING.—The Hartford Union Mining and Trading Company sailed from Hartford, in February, 1849, and arrived in California in September. It consisted of 120 persons, of whom two stopped in Rio Janeiro. At the end of 12 months from their arrival 12 had died, and 26 had returned home with $33,300, an average of $1280 each, and 77 remained in California, with $95,400, an average of $1239 per man. The highest sum possessed by any one man was $5000, while 19 had nothing at all. Allowing $1000 each for three, of whom no information was obtained, the general average for the whole company was $1116 each. The Fremont Mining Company, consisting of 85 members, arrived in California about the same time. At the end of a year, seven had died, 18 had returned home with $22,000, and 50 remained with $38,400—being a general average of $710 each. The highest sum gained by any one member was $5000, whilst 19 made nothing beyond their current expenses. The average earnings of the two companies were $946 each man. Deduct from this the cost of passage and outfit—say, $350 each, and less than $600 is left as a compensation for 18 months' time—12 of which were spent in labour of the most toilsome description, and six in a tedious and perilous sea voyage. From this it will be seen that not more than a dollar (4s. 2d.) per diem were gained by the individuals who had been tempted to leave their homes for the *auri sacra fames.*

"DOING THE CALIFORNIANS" IN FRANCE.—The multitude of Californian companies by which the lower class of Parisian speculators contrived to ruin their dupes last autumn, and which at that period filled the papers with gigantic advertisements, have long since exploded, but some curious facts in connection with them occasionally come to light. At the Tribunal Correctionnel de la Seine, a few days back, a man, named Hochgesangt, formerly a gingerbread maker, and subsequently manager of the company called "La Californienne," was tried for obtaining money under false pretences. It appears that the capital of this company was stated to be 5,000,000 fr., in 50,000 shares, of which, however, 15,000 were to be gratuitously presented to the manager, who was likewise to have 12,000 fr. per annum. Hochgesangt named a number of respectable persons as directors, and notwithstanding their refusal to act, advertised them in his prospectus. He made a contract with the Earl of Stirling to purchase the rights which that nobleman was supposed to have over extensive properties in California, in consequence of a grant to his ancestors by Charles the First, but it was not carried out, and the question of the availability of the grant under the American Government was not discussed. Shares were largely taken, and 523,000 fr. paid to Hochgesangt by the subscribers. In return, he distributed a 5 per cent. dividend, although no profits were ever made, and he issued a report, stating that six parties of *travailleurs* had been sent out, and had extracted large quantities of gold. These parties were also stated to be entirely devoted to the interest of the company, while the fact was, that all who had been dispatched had deserted instantly upon their arrival: 100,000 fr. were spent in advertisements, 100,000 francs in "administration," and, finally, Hochgesangt absconded, leaving debts for 110,000 fr. He was condemned by default to five years' imprisonment and 3000 fr. fine.—*Times.*

# A Compendium of British Mining.

BY J. Y. WATSON, ESQ., F.G.S.

## EAST POOL TIN AND COPPER MINE,

IN THE PARISH OF ILLOGAN.

This sett is held on lease of Lady Basset, for 21 years, at 1-15th dues, and about 17 years of the lease have expired. Divided into 128 shares, and upon an original outlay of 5*l.* per share, the mine first made returns in 1834, and yielded from that period to end of June, 1843, 17,518 tons of copper, realising 136,431*l.* 3s. 6d.; out of this amount a considerable sum of money was expended in the necessary machinery, and 29,824*l.* divided as profit among the shareholders. From this period (1843) the mine began, though only 90 fms. deep, to show symptoms of decay, and in 1846 the returns of copper fell to 594 tons, and in 1847 to 560; about this time, too, to add to its misfortunes, a defalcation arose on the part of the purser, who was at the same time Lady Basset's steward, and the consequence was, calls, amounting in all to 15*l.* per share, were made upon the shareholders.

To the end of June, 1848, the total returns in copper were 22,786 tons, yielding 163,144*l.* 16s. 6d., besides a considerable quantity of tin, particulars of which I have been unable to obtain. From 1848, to June, 1849, 1238 tons, yielding 4143*l.* 9s. 6d.; from 1849, to June, 1850, 1159 tons, yielding 4023*l.* 4s. 6d.

At the present time the management is in the hands of a committee, and the returns in tin and copper are more than meeting the cost of working, and great expectations are formed that the mine may, in some degree, recover its former position among the profitable mines of the district.

## THE DOLCOATH COPPER MINE,

IN THE CAMBORNE DISTRICT.

This sett is principally in the hands of Cornishmen, and derives its chief claim to notice from its being the oldest mine in Cornwall, having been worked with but little interruption for a century past. It is 300 fms. deep, and made profits to the extent of 300,000*l.* The present returns yield about 7000*l.* a year, and which can barely pay expenses.

In Pryce's *Mineralogia Cornubiensis*, published more than 50 years since, Dolcoath is mentioned as one of the most extensive and most important mines in Cornwall: the depth then was barely 100 fms., and the opinion of miners, at that time, limited the productiveness of copper lodes to a depth varying from 40 to 80 fms., and although the ore was known to exist at a greater depth, it was considered to be deteriorated in quality, and scarcely worth pursuing; but that this was a fallacy, many of the best mines, such as Consols, Tresavean, &c., sufficiently testify. In Wheal Abraham, the lode in the 240 fm. level was larger than it was nearer the surface. In November, 1814, a large cavern was discovered in Dolcoath at the depth of 170 fms. from the surface; its form was very irregular, from 18 to 20 fms. in length, 3 fms. high, and from 4 ft. to 9 ft. wide; in the lower part, and wedged between the walls, there are several rocks, between which are spaces which communicate with other cavities below. In the valley the workings were carried to such an extent, that no timber could reach from side to side in the levels, and still the lode is found to extend to a greater width. The miners work in a swing stage, which they drop against such parts of the side as they intend to take away; and then letting themselves down by means of a swing chain ladder, they blast down immense quantities of rock. In 1810, silver ores were raised in this mine to the value of 2000*l.* The returns in copper ore from this mine from 1814, to June, 1848, have been 238,059 tons, yielding 1,361,681*l.* 18s. 6d. From June, 1848, to June, 1849, 1017 tons, yielding 4673*l.* 17s.; and from June, 1849, to June, 1850, 1218 tons, yielding 6083*l.* 15s.

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"HAINE'S BIG COAL."—The large mass of South Staffordshire thick coal, noticed in our last week's Journal as intended for the Exhibition, having become the subject of much discussion, we have given ourselves the trouble to obtain as authentic an account from the "black country" of its raising, &c., as we are able, and have no doubt it will prove interesting to our readers, as being a feat which we believe was never before heard of in the history of coal mining, presenting as it does a strange contrast to what coal mining was half a century ago. Here is one solid block of coal, weighing 12 tons 9 cwts. nett, raised from a depth of 165 yards without accident or the least derangement of any part of the machinery, while three quarters of a century ago, in the same locality, gins were chiefly used for the raising of the coal, and probably not more than 3 or 4 cwts. drawn at one time, and that considered great things, too, by the old miners. The colliery from which this black diamond is wrought is called the Denbigh Colliery, situate in the parish of Tipton, and nearly in the centre of the South Staffordshire Coal Basin, and is worked under lease from the Right Hon. Lord Ward, and John Stubbs, Esq., of Hampstead, as joint mine owners, by the spirited and enterprising firm of Messrs. Richard Haines and Sons, in whose favour, as coalmasters, too much cannot well be said; neither can it be considered out of place here to observe that the much respected father of the firm, Mr. Richard Haines, commenced his career as a working collier, and, by enterprise and industry, gradually lost hold of the pike and rake, and now we find him one of the most extensive and respected coalmasters in the whole district, and in his 79th year lives to see an achievement, through his skill and mining acumen, that will do honour to the Crystal Palace, representing, as it does, the source from which the whole edifice has sprung. The cutting out or hewing of the coal was conducted by the junior part of the firm; and their determination to achieve the object in view is not less deserving of praise than the success which attended their undertaking. A meed of praise is also due to Mr. Benjamin Hackett, their engine builder, for the valuable assistance he rendered in raising such a ponderous mass. The chain by which it was raised to the surface is the subject of a patent taken out by Messrs. Haines for making flat chains; it weighs about 23 lbs. to the yard, was made by themselves, *and has been doing hard work these last six years.* The engine which drew the coal is a 60-horse high pressure, built by Mr. Benjamin Hackett, and has drawn many weeks together 1500 tons, without slides in the shafts. The pit shaft is 7 ft. 6 in. diameter, and the average of the coal is 7 ft. diameter, with an average height of 9 ft. 6 in. It was hewn out of the solid about 60 or 70 yards from the pit bottom; it was cut round, and is as nearly cylindrical as it can be made: it was then gradually drawn on to a strong wooden platform, or sledge, to which the engine was affixed, and so hauled into the pit bottom; and, instead of lashing it with chains to draw it up the shafts, a much better plan was adopted, by boring a 3½ in. hole through it, inserting a 3 in. wrought-iron bar, with a plate and cotter underneath, by which it was raised to surface, and which will remain in it to its place of destination. The principle of mechanics taken advantage of to raise this "raker" for her most gracious Majesty was, by doubling the chain down the pit, and working it under a snatch pulley, having the end of the chain fixed at surface, which just halved the weight the engine had to overcome. Great rumours have been afloat that the committee refused its admission to the Palace, and not without foundation, as Messrs. Haines did not apply for space until after they had raised it, which proved too late; but, from the kind intercession of the lessee of the South Staffordshire Railway, Mr. Haines has received intelligence that they have prepared a coal hole for it, and that it will be admitted into the Palace; and we hear that this gentleman has kindly consented to carry the Queen's "raker" by his rails free of charge, and deliver it safely. Pleasure trips from Birmingham, Walsall, Wolverhampton, and other places, have been continually pouring in; and on the day of its removal from the pit bank to the Great Bridge station on the South Staffordshire line, cheap trips are advertised from all parts of the kingdom. It will be removed on a strong carriage, drawn by a splendid team of large pit horses, and we have no doubt will form an object of curiosity for the pleasure-seekers all along the line of rails to the Crystal Palace.

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SHIPBUILDING AT SUNDERLAND.—There was launched on the 4th inst, from the shipbuilding yard of Mr. Wm. Pile, jun., North Sand, a fine frigate-built ship, of the burden of 1000 tons new measure, classed A.1. 13 years, and named the *Chowringhee*, the property of J. Hay, Esq., of Cresswell House, near Sunderland. Length of keel and rake, 170 feet; extreme breadth, 31½ feet; depth of timber breadth—and the longest ever launched in the Wear. She is a beautiful model, combining carrying capacity with fast-sailing qualities, and great strength. Her iron fastenings are peculiar, and embrace many important improvements. The iron knees alone are upwards of 60 tons weight! Some of the most eminent shipowners from the Thames and Mersey have seen her, and have thus had unquestionable evidence that Sunderland, not merely as regards the extent, but also the character of its shipbuilding, is rapidly going ahead. The cabins are capacious; and the fittings, which are in a style of great elegance, have been executed under the superintendence of Capt. G. Brown, her commander. The decorations have been executed by Messrs. Lindsay, of Sunderland, and do them great credit, being beautiful in design, and richly relieved with black and gold. The figure-head represents a Bengalese struggling with a tiger. While Great Britain can produce such merchantmen as the *Chowringhee*, she need fear no rivalry with America, nor the commercial marine of any other country. Mr. Pile has received orders from the owner to build an East Indiaman of 2000 tons burthen, which will be the largest vessel built in Sunderland. There are at present 105 vessels building on the Wear, and a number more to lay down.—*Gateshead Observer.*

# Original Correspondence.

## PRACTICAL MINING.

SIR,—In a coal-pit, about one mile from Renfrew (Scotland), the regular strata rises at an angle of 30° south. The level was worked 80 yards west from the pit, and the angle varied very little. At the end of the said distance an increased angle took place, which amounted to 70° south; and when the west level was worked 11 yards further west, the floor stood 90°, or perpendicular; and at a distance of five yards more to the west, the floor of coal seam overlays it altogether, at an angle of about 75°.

As some considerable capital is intended to be laid out on the same grounds to the south of aforesaid dislocation or upheaving of strata, we should feel greatly obliged to any of your practical correspondents who would favour us with the results of their experience. Also, if in practice, the under coal seams may be expected above the present coal bed, where the floor now overlays the said coal as a substitute for the roof.

*March* 11. ▲ MINER.

## THE PERRAN ST. GEORGE MINES.

SIR,—In reply to Mr. Ennor's inquiry respecting the position of the granite in reference to the most productive parts of these mines, I beg to state that the Clegga granite is situate within about 40 fms. north and west of our present principal copper workings. At about the west part of these mines this granite, on its south part, joins with and overlays the killas at an angle of about 15°, very uniformly from the surface down to the sea, a depth of about 45 fms. As far as can be discovered at the surface, the form of this granite is about circular, and its diameter from 200 to 300 fms.; but not being able, for the sea, to distinctly trace its northern boundary, we are not positive that such is the case. A great number of small veins, of an east and westerly direction, are to be traced throughout this granite into the killas, all dipping north at about the same angle as the granite where it overlays the killas. Great quantities of tin and copper have been raised from these branches during my remembrance; and I believe, from what I have been told, that it is one of the most ancient tin mines in Cornwall. Now, notwithstanding the uniform continuance of north underlaying branches in and throughout this granite, I believe that not a trace of a south underlaying lode can be found, although the most productive lodes in the eastern part of this sett and Wheal Leisure are south underlayers, and should by their direction pass into it. At about 600 fms. east of Clegga we some time ago discovered another patch of granite, which in the adit level (about 40 fms. from surface) is only 6 in. wide, and in the 10 fm. level 6 fms. There is not the slightest appearance of this granite at the surface. This point is situate about 150 fathoms north of that part of these mines which yielded so much riches to the English Mining Association. At the south, and about parallel with the Clegga granite, and the last-mentioned point, runs a stratum of beautifully light killas, nearly uninterruptedly throughout these mines into Wheal Leisure on the east, and Wheal Prudence on the west: the best deposits of ore have been found in and underneath this stratum. Also at the south of these two granite points, and distant respectively about 80 and 100 fms., are two large elvan courses, one underlaying north and the other south, and traversing the whole length of the sett, and westwards into Wheal Prudence—a mine from which a great quantity of copper ores have been raised, in the same stratum as referred to, and at about 100 fathoms south-west of the granite.

*Perran St. George Mines, March* 8. THOMAS PILL.

## EXAGGERATION RESPECTING DIVIDENDS FROM MINES.

"The system, however, of advertising mines as paying regular dividends of 15 to 40 per cent. ought, as 'Argus' says, to be abolished."

SIR,—The above text occurs as the concluding remarks of Mr. J. Y. Watson on the Gwennap Mines, in your last Journal.

Being of opinion that a close approximation to a fact, where the fact itself can only be stated approximatively, is the best course to pursue, I have frequently observed with regret, that several mining brokers and others advertise dividend mines "to pay 20 *to* 40 *per cent.* interest per annum;" whereas a fair average rate is not beyond 12½ to 15 per cent.: and if this latter position be disputed, I invite a list of mines that will, or can, pay so much as 20 per cent., or one fraction above it. Take two mines largely dealt in as types of all the dividend mines—say, Devon Great Consols, price 280*l.*, dividend per annum 40*l.*, or about 14 per cent.; Bedford United, price 8½, dividends 25s., or 15 per cent. It is true that, now and then, a mine is found to pay, in consequence of a sudden improvement in its returns of ore, as high as 20 per cent. interest; but so soon as the "knowing ones"* find it out, the shares are immediately snapped up, and in changing hands the price is quickly enhanced (leaving the dividend stationary), until *that* mine gradually subsides into the average I have described of 15 per cent. as a *maximum*. A strong desire, Mr. Editor, to see THE PUBLIC stand right in all mining matters must be my apology for troubling you on this occasion.—A MINING BROKER: *London, March* 12.

## THE CORNISH CALIFORNIA.

SIR,—In your last Journal there is a short letter under this head, dated Truro, 5th March, and signed "Argus," which induced me to make diligent inquiries in this locality for "Argus," but have failed to find an owner for the name. He asks why I kept back the name of the person in Cornwall to whom Mr. Towers wrote, and obtained a report of the mine prior to giving his acceptances, and also the name of the agent to whom Mr. Towers expressed himself perfectly satisfied with his purchase? Now, I ask if I am not more justified in the keeping back the names of others, than "Argus" in keeping back his own; though I pledge myself that if "Argus" will emerge from the darkness that conceals him, by giving his name and address, I will furnish the information he requires; but unless this be conceded, I shall deem his further communications unworthy of notice.

*Rose Cottage, Truro, March* 11. J. B. PELLEW.

## "A GOOD BAL MAKES A GOOD CAP'N."—No. II.

SIR,—A few months ago, you inserted my first letter under the above head—a letter in which I maintained that the conduct of adventurers towards a mine agent, who happens to be unfortunate in his selection of mines, is very unkind, unnatural, and unreasonable. That conduct consists of neglect, reduction of salary, and of ultimate dismissal. I contended that no man in the world can tell *certainly* what a mine will turn out. There have been some very happy auguries; and where these have been realised, the fame of the augurs have been trumpetted forth through the *Mining Journal*, and in other ways—these happy individuals claiming extensive credit for their sound judgment; but they take good care to keep out of view as much as possible the cases in which a different result has followed their predictions. The *very best* agent under the sun may be deceived—even Mr. Hopkins himself, although I take this gentleman to be an excellent geologist, and I know him to be very conversant with mining affairs generally; and Mr. N. Ennor, with all his experience and scientific attainments, is fallible, like the rest. The fact is that, although geological science has been on the advance of late years, it is still but very imperfectly known; and I fear that generations will pass away before the world will be in possession of that amount of knowledge which is so much desired for its application to mining.

When Mr. Ennor's letter, as to the *origin of lodes*, appeared in your Journal, a reader, not acquainted with the profundity of the subject, would be inclined to take it as the enunciation of some new light, and that the origin of lodes was as well known to him as the origin of anything else; but, instead of that, you will find in his communications nothing but a *theory*, which may be true or false. Mr. Hopkins, I find, is *very often* correct in his opinions on various mines; but even he does not pretend to infallibility. There can be no doubt that some agents are much better qualified than others to give an opinion as to the probable results of mining in given places. A man who goes underground for the first, second, or third time, must not be supposed to be as well prepared to report on a mine as a man who has been many years accustomed to mining. It would be absurd to think that; for there is *something to learn*, and it requires years to learn that something. The reason how Mr. Hopkins knows so much is this—he has had to inspect mines in many parts of the world (abroad, as well as in this country), and has been an *acute observer*. Notwithstanding all that is known in the world on the subject of lodes, mining must be regarded still as an *adventure*. More anon. R. S.

*Camborne, March* 11.

* By "knowing ones" I mean the gentlemen who, whether in business or out of it, are alive to all the turns of the market, and who make mining shares either a business or a study. Such men are, of course, the most successful—indeed, they are rarely unsuccessful—in this *field* of enterprise, because when they purchase a share they can give a reason for so doing quite satisfactory to themselves.

## CAUSES OF MINING FAILURES.

SIR,—For a series of years you have called public attention to the *abominations of Anglo-foreign* mining companies, in the lavish abuse of their trusts, and in so recklessly squandering immense sums of money in different parts of the globe, in working old mines that once returned to their former proprietors silver by the ton, and gold by the *arroba*;* all of whom have, with three or four exceptions, most signally failed, in spite of the ample appliances of capital, energy, machinery of every kind, the often powerful aid of the steam-engine, the stock of European presumption, or, in other words, the supposed power of doing better and knowing more than those who have devoted a life-time to their business. But as a direct knowledge of the art of extracting the precious metals from the ores in a large way was practically unknown, from their not being found in quantities sufficient in Great Britain to have led to the forming of sound practical working views, the failure in many instances was complete through the imperfect theoretical arrangements; while the more practised native of the New World would, by more accurate knowledge, combined with a greater degree of economy, and a less desire to "*astonish the natives*," or cut a dash as an English chief commissioner, have been successful, though at the same time possessing knowledge barely sufficient to follow Nature's laws as a guide in following up his views, and only working those parts that were commercially profitable.

Such men and modes enabled the former proprietors to carry out enterprises that even an Anglo-foreign mining company would have quailed at from their magnitude, and which yet exist in many parts of the New World, even as ruins, that will perpetuate their remembrance for ages; whilst three-fourths of these foreign mine chief commissioners will only live in tradition, to be execrated for their follies and vices.

Much of this, no doubt, originated from mining in Great Britain being an untaught science—neither fostered by Government, or promoted by the aid of private schools, neither assisted by a class whose fortunes have originated from the available wealth of the various mineral districts; in fact, only by *private practice* underground, with but little to read on the science of mining. To this day, there remains no other method of acquiring information in a country whose mineral wealth has had such an important tendency to ameliorate the social condition of man, and producing about 35,000,000*l.* annually.

The *Mining Journal*, being the only organ of the miner, as a class, I appeal to you to endeavour to do for the mining interests of Great Britain what it has done for foreign mining—viz.: point out the causes of failure which annually take place to so large an extent, their consequences to both adventurers and miners; and at this moment, considering the great number of new mines *started* and *starting* continually into existence both in Cornwall and Devon, and other mineral districts, it must be a matter of national curiosity to investigate the causes why so many mines "*are doomed to die the death of the wicked*," and more than ever seem to neutralise the occasional reports of such glorious prizes as the Devon Great Consols, Wheal Buller, East Wheal Rose, North Pool, Par Consols, and many others of the same valuable class, and so deter the occasional and cautious speculator from participating in the smiles of the fickle goddess—Fortune. How many of even the old stagers are disappointed in their well-calculated belief; and yet in how many instances, after a mine has been abandoned as hopeless, another party has stumbled on treasures that have mocked the disappointed party whose money first spent, to them so uselessly, becomes subservient to the more favoured adventurers, "who reap where others have sown?" In a similar position to mining at present, the sea coast once existed; but the Trinity Board stepped in, made good charts, and built lighthouses on the most dangerous parts of the coasts of shoals, bars, &c.; and still, when two or more wrecks occur in a brief space of time, this board lays down *buoys*, to endeavour to warn others of the fate that awaits them: and although it is in the nature of things that both ships and mines will founder occasionally, how many of the former are forewarned by the "*twinkling light that gleams from afar*," and points out the dangers to those who are willing to benefit by experience? and thus, with the assistance of charts, navigation is no longer an uncertain science. For mining, there exists a geological chart incomplete and useless, except for the coal measures, and of but limited value to the miner in general. But what is now wanted is a map pointing out the various mines that have been put to work during the last 20 years the sums expended on each; the results, whether beneficial to the projectors or adventurers, whether merely speculative in their origin, or whether real indications existed that were ultimately realised; the amount of money expended, the amount squandered (by this I mean, wasted as regards utility for the mine); the duration of working those mines; how many discovered by the aid of science or scientific men; how many by analogy or practical observations; how many simply for the convenience of "*management of the concern*," or employment for relatives, or any other of the thousand and one contingencies that spending the money of others may be supposed to have influenced; how many abandoned when there were prospects of success: but, alas! the *tin* was already all *forked* out of the pockets of the majority of those who so often adventure in new mines. Then comes a *total abandon*, a sale of materials even, sometimes to facilitate the views of one whose eagle eye has for long contemplated purchasing mine materials at one-fourth of the original cost, to start again another "*very promising bal*." Also, how many short-lived mines have sprung up from those persons who, by accident, once in their lives have stumbled on a good thing, and who thus thought their own sagacity had done what was the mere result of chance. How instructive, as well as amusing, would be their real and true history, with *birth, parentage, and education, and their last dying speech and confession.* Others, again, have originated from the fact of a mine being rich in a known locality; they then try "*to believe this is a parallel lode*," and must, of necessity, become equal in value to its prototype; whilst, unfortunately, it proves to be an *oblique parallel*, something like unsettled mine accounts when calls are not responded to.

Then again comes a class of *district riches*. These have no known laws, but are ably defended by the sapient class of mine orators, whose *jew-dicious* views have taught them to forget that one rich bunch is actually the precursor of 15 poor ones in the immediate neighbourhood. How many mines, again, have been short-lived from the sins of omission and commission, negligence, incapacity, petulance, grievous quarrels, and other equally unfortunate concomitants of disreputable mining? Again, there is a class, and perhaps deserving of pity, who from their sanguine nature having deceived themselves, ultimately deceive others, but not intentionally: still many improper setts have grown into life this way, but only bloom to fade in the bud, and it is then discovered that, from imperfect examinations at first, they have expended nine-tenths of the capital, when by care, economy, and judgment, one-tenth only would have been required to have produced an equal, or perhaps a better, result. You have already given us the history of those mines that, like the good Christian, have lived with a fair character, have been respected by their neighbours, have paid their way, have enriched their owners, and have refused to be godfathers to the *unworthy*, and have been highly prized by those whose good fortune led them to be connected with them.

Finally, how many so-called mines have been put to work that never should have been worked, and where the indications were never sufficient to warrant the outlay of a shilling for any earthly purpose? These have also aided in swelling the list as regards numbers, and cost, and total loss. Could none of the philanthropic societies, or societies for suppressing vice and immorality, be induced to start in this fair and ample field, seeing that the majesty of the law takes no notice of those failures? The Committee at Lloyds, daily, weekly, monthly, add to the list of merchant vessels the *wrecks*, how and when occurred, captains' names, and other and sundry interesting particulars, the amount of salvage, &c. But, badinage apart, could not a catalogue be got up, showing how these various mines have failed, whether from inferior quantity or quality of ores, much or little water, which often is a serious item in the expense, whether steam was employed, the quantity of fathoms worked, the time, &c., and any of the contingencies that mining is subject to?

Even a corner in the *Mining Journal*, headed "*Wrecks*," would be highly acceptable, and would soon weed the busy mining world of many of these *choice specimens of oratorical* and fancy mining, which, although mining can never be without hazard as a speculation, yet by weekly pointing out the *deceased*, and whether caused by errors of the head or blunders of judgment, would soon thin the ranks of the vulture mine speculators, who only fatten at the expense of others. Was it compulsory by law that such reports should be made, and animadversion allowed on the same, much benefit would arise in a great commercial nation, where capital so rapidly accumulates; and mining would become far more tempting as a field for the capitalist than the various foreign loans of the last 20 years, in connection with which the once great Spanish nation are now performing the

* A Portuguese arroba is equal to 32 lbs. Avoirdupois; a Spanish arroba equal to 25 lbs.

farce of *A New Way to Pay Old Debts*, by declining so much of both principal and interest as they feel manliness to do, after their glorious sacrifice of sending 4000 troops, and other *matériel*, to assist that great *anti*-miner—*Pio Nono*.—AN OLD SUBSCRIBER: *March* 10.

## SWANSEA TICKETINGS.

SIR,—I notice that the Messrs. Bath have thought proper to contradict the communication I requested the favour of your insertion, in your Journal of 26th February. I may have been wrong in stating *ticketing*; I think, on reconsideration, that the regulus referred to had been sold by private contract. Mr. Bath *himself* being my informant, must be the best judge. I will refer to a gentleman who was in my company at the time Mr. Bath named it, who, perhaps, may have a better recollection as to the precise words mentioned. It does not, in my opinion, alter the case, whether the regulus had been sold at a ticketing, or by private contract.
*March* 11. A MINER.

## BURRA BURRA MINE AND ITS ORES.

SIR,—As I am not an adept at amphibology, nor a judge "of the earliest plutonic formations," I should be glad to obtain a little information from the party furnishing you with such a "conglomerate" account under the above head. I have seen many specimens of every variety of copper ore from South Australia, crystallised and otherwise. I am now told they "sometimes occur in cubes, and cubes with truncated corners," emanating from mines "belonging to the formation of copper slate."

I should like to behold some of these "plutonic and copper slate formations." Will you request two favours on my behalf?—1. To know what the writer means by "copper slate" and its underlie.—2. Where I can see one of the *copper cubes* (not truncated). I have plenty of perfect cubes of mundic, like dice, but a real genuine copper one has never met the eyes of—
*Truro, March* 4. ARGUS.

## THE SHARE LIST.

SIR,—Your Share List was, doubtless, intended as a guide to the capitalist seeking for investment; but, until some mode for arriving *at facts* be adopted, the present must remain open to objection, and both yourself and the public liable to imposition. From your Share List of the past week, it would appear that transactions had taken place in the North Basset Mine at 10*l.* per share, which must surprise many of your readers, and more especially such of them as are deeply interested in that mine. The North Basset is almost exclusively in the hands of capitalists; and from the fact of her being a dividend-paying mine, and from the daily improvement therein, but few shares change hands; and, for the information of your readers, I beg to subjoin the following facts:—That no transfer has taken place during the *last month*; that, during the last *three months*, 18 shares only have changed hands, and those at prices varying from 20*l.* to 25*l.* per share.—J. P.: *March* 12.

## INSPECTION OF MINES—ANONYMOUS CORRESPONDENCE.

SIR,—The following anonymous notice has been sent to me. I have never sold shares in any of the mines ("so-called") therein mentioned; but much being implied in the brace of words in parenthesis, I hope the notice will meet with replies on behalf of the mines, all of which I find in your List, and in a cluster near the Land's-End, showing them to have "local habitations" as well as "names."—JAMES CROFTS, Mining Broker: *London, March* 12.

SIR,—You sometimes have shares for sale in the following so-called mines, it will be wisdom on your part to have them inspected before you recommend them:—

| | |
|---|---|
| Wheal Augusta (St. Just) | Penzance Consols (Sancreed) |
| East Balleswidden (Sancreed) | West Wheal Jewel (Sancreed). |

*St. Just, March* 10. A LOVER OF FAIR PLAY.

The following has been since received:—

SIR,—Take a miner's advice, and have Spearne Consols inspected before you buy into her.—ANTI-JOBBER: *St. Just, March* 11, 1851.

## WEST UNITED HILLS MINE.

SIR,—A most unwarrantable use has been made of my name, in an advertisement in your last week's Journal. I am not, and never was, the purser of this mine.—JAMES NICHOLSON: *New Bond-street, March* 13.

[ADVERTISEMENT.]

## WHEAL PROVIDENCE.

SIR,—I could not permit your remarks in the last Journal to pass unnoticed, without appearing to have been strangely indifferent to my own interests, and less prompt in adopting proceedings for such an attempted invasion of my rights than might have been expected. You must have been grossly imposed on by some persons, before you could have allowed your paper of last Saturday to be made the vehicle of the following falsehood:—"And they also state no notice has been received of legal proceedings having been commenced"—the fact being that on the Thursday week preceding, or *ten days* before you published that statement, one of the principal parties had been served with a subpœna, to answer a bill in Chancery, and another had also been served a week prior to last Saturday, and before your paper was published they had actually appeared to the process. So much for that part of the defence. It is *quite true* "that the first they heard from Mr. Harvey was the advertisement in question." If a thief were to break into a man's house, he would not be expected to parley or hold friendly relations with him afterwards, whatever may have been their former position or connection. His first object would be to put the law in force, and to seek the ministers of justice. Precisely such was my course. I first consulted my solicitor; then, together, consulted and instructed an eminent barrister at the criminal bar; then, acting under advice, sought an inspection of the cost-book, which was audaciously refused: next applied to the chief magistrate of the City of London: then consulted, and finally instructed, a Chancery barrister: again endeavoured to get an inspection of the book in a court of law, where the purser had been subpœned to attend, and produce it as a witness, which he had done in the same matter, a short time before, when the transfer *was intact*; but he preferred disobeying the order of the court, for which he was fined 10*l.*, and the cause was adjourned, in consequence of his absence. Again he refused to attend, and again was fined 10*l.* more, and ultimately paid the debt and costs for the defendant rather than produce the book. Very much like an honest and open transaction this (?) And, lastly, I prepared instructions for the bill in Chancery of considerable length, which bill has been filed, and special leave to move for an injunction obtained in Lord Cranworth's court, which motion would have been made *this very day*, but for the protracted cause in hand against Wiseman and others; from all which, you will perceive that I have not been very inactive, and still, I assure you, further and rigorous measures are in preparation, as I am determined to prosecute all the parties concerned, *be they who they may*.

You must be well aware that, if there were any pretence of claim, or demand, in reference to the shares, which I utterly deny, that the tribunals of the country were open to them. The attempt to cancel a transfer of shares in a cost-book, by the act of one party, is fraudulent, illegal, and justly punishable, as an offence of grave character against the established rights of individuals to mining property—the simple transfer in the cost-book, and the signature of the transferee, being the only evidence of title required in any case.

This is the great fundamental principle involved in the matter, and not what may be *said* by one party or the other as to collateral circumstances; and this principle is one in which the whole mining world is deeply interested, and which I will maintain in its integrity. There are others likely yet to be implicated in the transaction; and you may rely on my efforts to secure a full measure of justice for one and all. Let the man who would defend such a breach of mining law be the holder of shares in a mine which cost him originally 1*l.*, but which are now, as in some cases, worth 250*l.*, and six months after the property had been legally and absolutely assigned to him, the transferer, on some pretext, never even hinted to him, colludes with the purser, obliterates his name from the book, writes "cancelled" on the transfers and then says he has a dispute about the property—first performs the act, and then invents an excuse. Let such a man make the case his own, and how would he act?—THOMAS HARVEY: *London, March* 14.

WHEAL MEDLYN (Wendron, Cornwall).—This sett is bounded by the following tin mines:—Balmaneer, Common Downs, and Balcoath on the north; Wheal Evans, Polkellows, Wheal Mary, and Great Wheal Vor north-west: Wheal Ruby, Wheal Ann, Wheal Trumpet, Trevethick Wood, Trevoilas, and Wheal Lovel south, all of which mines have in past and present operations been found highly metalliferous and profitable. About four years since some limited operations were attempted by two or three Plymouth gentlemen by means of water-power, and the engine-shaft sunk 10 fathoms from the surface, taking the lode at that level by a cross-cut of about 12 ft. A driving on course of the lode was then commenced, and driven east and west about 30 fms., and the back removed for one-third of its length, producing the large amount of 15 tons of tin, which sold for the exceedingly high figure of 55*l.* per ton. A continuation of the end eastward brought them in conjunction with a cross-course composed of prian, peach, and a large proportion of tin, as well as a rapid increase of that greatest enemy to mines—water; the result of which was the sudden drowning of the machinery, and consequent abandonment of the mine. Reed's lode, 20 fms. south of this, with others still further in that direction, have been worked to considerable extent, yielding great quantities of tin. In speaking of these lodes collectively, it is necessary to refer to a large and fine copper lode, running parallel to the others, and within 40 fms. of the engine-shaft: its width is 6 feet, composed of gossan, spar, and copper, and in all respects indicative of that metal. The lodes south are three in number as observed by me, but report states the number embraced in the limits to be six, all of which may be intersected to great advantage by a continuous cross-cut, north and south of a central engine-shaft. The sett is large, covering ground to the extent of a mile square, and encloses some six or eight lodes. The surrounding country is of the most favourable character, being a soft granite; and from past and present returns, may be strongly recommended as a legitimate speculation to the notice of any parties who may be disposed to make an outlay equal to warranted appearances. In order to carry out this to a successful issue, it will be necessary to erect a good steam-engine, of from 40 to 50-in. cylinder, with pitwork, shafts, and other preliminary work, to the amount of 3000*l.* With this outlay, I have no hesitation in saying you will not be long without handsome returns, and ultimately a good-paying mine.

# Mining Correspondence.

## BRITISH MINES.

ALFRED CONSOLS.—Field's engine-shaft is sunk 2 fms. 6 in. under the 80 fm. level, lode from 5 to 6 ft. wide, but no mineral of value to save. The 80 fm. level is extended east of the engine-shaft 8 fms., lode in the end is from 3 to 4 feet wide, composed of soft capels and mundic—this level is within 2 fathoms of No. 1 winze, and we expect soon after reaching the winze to see a change in the lode; we expect to resume the sinking of this winze by the middle of the week. The lode in the 70 fm. level, east of engine shaft, is from 6 to 7 ft. wide, all this width is good saving lode, about 60*l.* per fm.; this level is extended within 5 fms. of Wyld's shaft. Wyld's shaft is sunk 4 fms. under the 60 fm. level; the lode in this shaft is 4 ft. wide, containing some good stones of ore; we hope by the end of two months from this time that this shaft will be communicated to the 70 fm. level. There is no change in any other of our tutwork operations. We have thought proper to suspend the driving of the 110 fathom level east on the back of the lode. Our tribute pitches and stopes over the different levels continue to look very well.

APPLEDORE.—During the past week our operations have been confined to No. 1 and No. 2 lodes. We have sunk a trial shaft in No. 1 about 3 fms.; the lode in the bottom of the shaft is 3 ft. wide, composed of gossan, quartz, and flookan; this lode throughout is well developed, and, in my opinion, presents the best indications for more permanent operations. No. 2 is large, but not so well defined; we shall continue the shaft in No. 1, and open in No. 2 by driving a shallow level on it for a few fathoms, after which I should think we might determine on a spot for an engine-shaft.

BEDFORD UNITED.—In driving east from the engine-shaft, in the 115 fm. level, the lode is 2 ft. wide, composed of spar and mundic, containing good stones of ore; there is a strong capel each side of the lode, which renders it troublesome for driving, and our progress is, consequently, slow; in the same level, west of Andrew's winze, the lode is 2 ft. wide, composed of capel, spar, mundic, and some saving work—being, on the whole, a kindly lode, and likely to make rich at a deeper level; in the eastern end, in this level, the lode is 3 ft. wide, composed of fluor-spar, mundic, and good stones of ore. We have some fathoms to drive to get under the course of ore in the 103 fathom level. In the 103 fm. level east the lode is from 3 to 4 ft. wide, and will yield from 6 to 8 tons of ore per fm. In Arscott's winze the lode is 3½ ft. wide, and worth 7 tons of ore per fm.; this winze is now sunk 10½ fms., and we expect to hole it in the course of the month; the lode in the middle and in the western end of the winze has been getting comparatively poor for some fathoms, and the end being now under this less productive part accounts for the falling off; but this can be only temporary, as the lode in the eastern end of the winze dips rapidly, and we may be certain of reaching rich ore ground in extending the level beyond the winze. The lode in Parker's winze, in the 103 fm. level, is 3 ft. wide, and producing some ore, but not much saving work. In the 90 fm. level the lode in the eastern end is 2 ft. wide, and worth 1 ton of ore per fm.—altogether presenting very promising indications, and opening ground that will set at a moderate tribute. In the 80 fm. level we continue to drive by the side of the lode, and there is, consequently, no alteration to notice. In the 47 fm. level north we have just cut a lode 18 in. wide, containing black ore, mundic, and spar on the western side of the cross-cut. On the eastern side there is a small slide, which has heaved the lode, and we intend to continue driving north, as we are not certain that this is either the main slide or the Tavistock lode. The pitches generally are looking very well, and fully as productive as usual; and from the quantity of ore ground laid open, there is not the slightest doubt of being able to maintain our present returns. The machinery is all in perfect order, and the mine throughout in a very efficient state of working.

BIRCH TOR AND VITIFER.—The cross-cut is still driving north to intersect the north lodes; but they are not yet cut, and the ground is still hard. The most important operations on the Vitifer lode are as follow:—The 30 fm. level is driving west of the old engine-shaft by six men, at 3*l.* 10s. per fm.; the level is driven on the course of the lode 30 fms., throughout which the lode has been large and very promising, producing some tin, but not very rich. The 20 fm. level is driven west from the old engine-shaft 80 fms.; the lode is large, and in some places very productive. The ground in general has been very favourable, the present price is 45s. per fm. A considerable improvement was met with about 5 fms. behind the end, and still holds good; the lode for this distance will produce 5 cwts. of black tin in a fm., and can be stoped for 20s. per fm., which will leave a handsome profit to the company. The lode in the end presents every indication to justify the opinion that this will be a lasting course of tin, and from the favourable character of the ground, this level can be driven 12 fms. per month. It will be seen there are 45 fms. of ground to be driven through before the 30 fm. level will be under this course of tin, which may, from present appearances, be done in five months; but it by no means follows that a course of tin may not be met with in this level before that point is reached. Kelly's shaft has been cleared and secured to the adit level. The further clearing this shaft to the 8 fm. level, and its communication to the 20 fm. level, which is under this shaft, will effect a great saving, both in drawing the stuff and ventilating the mine; this should at once be done, particularly since the tin that will be broken will more than pay for the work. The deep adit is cleared 60 fathoms west of Kelly's shaft, and all the lode is taken away from the surface to the 8 fm. level. The other parts of the mine have not materially altered since my last report. The mine has now assumed such a permanent character, that I have no hesitation in advising you at once to remove the large water-wheel now on the Birch Tor lode, to your new wheel pit, where, as a drawing machine, it will command the whole of your western ground, and this would preserve sufficient levels for another wheel as a pumping engine for the western part of the sett.

BODMIN CONSOLS.—Our lode in the stopes in the back of the adit continues to improve. On Tuesday we broke some good work, the lode will produce 1½ ton per fathom. The 13 fm. level is not quite so good as last reported, although producing good stones of lead. Our operations in the 26 fm. level for some time have been suspended, in consequence of the water being more than our 8-inch lift could keep—I have put the men to sink No. 1 winze. In the north adit we have a good improvement, lode 5 to 6 feet wide, of a first-rate appearance, containing good stones of lead—this looks well for the 13 fm. level. Some parts of the new lift are delivered on the mine, so that I hope to put it in its place on Saturday next.

BOTTLE HILL.—The deep adit level is cleared east of Hitchins' shaft about 50 fms., and we are taking up some good work for tin—I hope we shall heave down the water above the deep adit by the end of the present week. The 12 fm. level driving west above the deep adit is much improved since my last report, as the end is producing good work for copper ore—saving work. The 24 fm. level driving west is also much improved, as the lode is from 3 to 4 ft. wide, good work for copper ore. Specimens of both the ends may be seen at the office of the company. We have also collared up the old whim-shaft, and are now erecting a whim, so that we may get our copper and tin ore to surface as fast as possible—this I hope will be completed by the end of the present week. All our other work is going on as fast as possible, getting out the foundation of the engine-house, and raising stone for the masons. Nothing is left undone on our part in order to forward the getting out of the water, so that we might get down to see the rich course of tin in the bottom of the mine.

BUTTERDON.—Since last week the shaftmen have been busily engaged securing the cross-cut, which was more to do than I at first anticipated, and have not completed it as yet, but I expect they will in a short time longer, so as to get at the lode, when from the great quantity of water issuing out, I expect to be able to report favourably, particularly as I observe some spots of lead in the stuff the water is washing out. Since we put the side lift to work we can keep the water very comfortably.

CALLINGTON.—The ground in the diagonal shaft, below the 125 fm. level, is favourable for sinking, and we are daily expecting to intersect the lead lode in it; the lode in the south end, in this level, is 10 in. wide, producing stones of lead; the lode in the rise above the north end is 14 in. wide, composed of spar, prian, and lead—opening ground that will set at a moderate tribute. The 112 fm. levels are communicated, and the water equally divided, and this part of the mine properly ventilated. Since our last report we have cut a plat in the 112 fm. level (counting-house shaft), and are now engaged in fixing a penthouse, previous to sinking below the level, which we shall do with all possible speed, so far as we can, before it is drained of the water; the lode in the 112 fm. level, north of the north shaft, is 12 in. wide, producing 3 cwts. of lead per fm.; there is a large stream of water issuing from this end, which, we believe, is coming from an east and west lode, and as the ground is very soft we shall soon prove it. In the 50 fm. level cross-cut, north of Kelly Bray shaft, we are constantly intersecting branches of spar, copper ore, and mundic, all dipping north, in a favourable stratum. No lode has been taken down in the rise above the 70 fm. level since last reported on. For the last few days we have been stoping the western end of the rise, in order to make room for another pare of men to take the stope, and those succeeding to resume the rising, which took place yesterday—viz.: eight men in the rise, and four men stoping. Johnson's lode in the 125 fm. level east is 2 ft. wide, composed of spar, mundic, peach, copper ore, and stones of tin—ground favourable for exploring at present; and we shall soon resume the 112 east.

CEFN BRUNO.—The lode in the adit level east is 3 feet wide, yielding 15 cwts. of lead ore per fm. The lode in the adit west is small and poor, but a cross-cut is being driven north, as it is thought that the main part of the lode is on that side. The lode in the 24 fm. level, east of whim-shaft is 4 feet wide, with a very promising appearance, and now producing 2½ tons of lead ore per fm. The lode in the shaft sinking from surface, 200 fms. west of the whim-shaft, is 20 in. wide, yielding good stones of ore. The deep adit level has not yet cut the lode.

CEFN GWYN (SILVER-LEAD, CARDIGAN).—From the commencement of working, in Nov., 1848, we have extended on the lode in the adit level east, from a cross-cut which was driven by the old men about 80 years ago, 30 fms., averaging full 8 ft. wide, composed of killas, with large portions of jack and spar, intermixed with good branches of silver-lead ore, several tons of the latter being now on surface. Not finding much improvement in driving this level, we commenced sinking a shaft on its course, 8 ft. long and 6 ft. wide, capable of taking all necessary machinery for drawing the water, stuff, and other purposes, to any extent; this shaft is now down below the level 7 fms., and in sinking we found the lode varying from 7 feet to 8 feet wide, and much improved in appearances in the last 6 feet, yielding at present 10 cwts. of ore per fathom. The water becoming so powerful, we could not work to any advantage without machinery; in consequence, we commenced building a new wheel, which is now finished, of sufficient power to pump the water and crush the stuff: we have a powerful stream of water at all times of the year running through the centre of this sett, called the Leary, rendering steam power unnecessary. West of the river, from the bottom of the hill, and about 100 fms. from the above-mentioned workings, we have driven a level on the course of the lode 40 fms. west averaging in size from 7 to 8 feet, composed of killas, spar, and good branches of silver-lead ore, good specimens of which are now to be seen on the mine. There are several other lodes to be be seen in this sett of a very promising appearance. It extends with the new addition of ground to be included in your lease three miles in length on the run of the lodes, and upwards of half a mile in breadth; the ground is all taken up for mining purposes to the east and west of this sett, and several applications have been made to the proprietor of the land for the piece of ground we have lately obtained in addition to our former sett at the same royalty, 1-12th; judging from the appearances of this lode, I should recommend the sinking of the shaft with as little delay as possible, to a depth of 20 fathoms, then to extend levels on its course east and west, which will lead to profitable results to the shareholders. It is a very rare thing to find such a champion lode as this to prove otherwise than a good one in depth, and the mine has been pronounced by many of the most experienced captains and agents in Wales as one of the best in the country. A further outlay of not exceeding 150*l.* for pumps, machinery, &c., will get it in thorough working order for raising and dressing the ore. We have a shipping port within six miles of the mine, with good carriage-roads, which is a great advantage to the working of such an extensive concern as this is likely to be.

COPPER BOTTOM.—We have now sunk the engine-shaft 5 ft. below the 50 fathom level—ground very favourable for driving, and promising for copper. In the 50 fm. level, west of engine-shaft, we have had good stones of ore in driving; at present the lode is disordered by a branch of spar crossing it; in the 50 fm. level, east of engine-shaft, we have a very kindly lode, producing good stones of ore. The lode in the 40 fm. level, west of Paull's shaft, is at present rather poor. The lode in the 20, west of Paull's shaft, is yielding good stones of ore. In a winze sinking under the bottom of the 10 fm. level, east of Paull's shaft, the lode is producing large stones of ore. In a winze sinking in the adit level, east of Paull's shaft, we have a large lode, producing good stones of ore; the two winzes above named are opening good tribute ground. In consequence of the water being in at the north part of the mine, I have nothing new to say respecting it, but that the water is forked to within 3 ft. of the back of the 20 fm. level, and I hope by the middle of next week to drain it to the bottom, and resume our former working. We sampled January ores on Tuesday, Feb. 25, being about 23 tons, and I am happy to say its produce is far above any we have before sampled—consequently, the amount of money will be above what it was reported.

DEVON AND COURTENAY.—Since my last report I have set Rundle's shaft to be sunk at 40s. per fm., large enough for the reception of the pitwork, and for a drawing shaft. The lode in the 40 rise is not so good as it has been; the ore is falling bad west, and leaving the rise where the 30 fathom level is brought forth; I have little doubt, however, but we shall find a good lode in driving further west of the rise. There is no alteration to notice this week in the 30 end, nor the bottom level east, but we have an improvement in the 60 fm. level west; the lode is 2 ft. wide, and will produce 1½ ton of copper ore per fm.

EAST CROWNDALE.—Our 50 fathom level east is still in disorder by the large cross and elvan course, very similar to the level above. No doubt, in my next, I shall be able to report we have reached the bunch of tin going down in the level above, which is close on the east side of the intersection. The lode in both stopes, in the back of the 40, is from 12 to 14 ft. wide, producing fair saving work. The stopes in the bottom of the 28, lode 2 ft. wide, producing good work. Our tribute department maintains its usual.

EAST DAREN.—The lode in the bottom of Taylor's shaft is 3 ft. from clive of ore throughout, the best part being in the east end; this shaft is now 12½ fms. below the adit level, and is free from water, although the 10 fathom level and the adit level driving towards it, are at present under water. The preparations for draining the mine are proceeding vigorously.

EAST GUNNIS LAKE.—Since my last report we have cut the ground for and put in the cistern, completed the bob-plat, and put in the angle bob, and dropped and fixed the plunger lift in the 16 fm. level. The shaftmen are now employed in clearing and cutting down the shaft in the 24 fm. level, which we hope to complete in the course of the present month. In the 16 fm. level the driving east on the north lode has been cleared home to the end, in which the lode is 2½ ft. wide, composed of spar, mundic, and some rich copper ore; it underlays slightly to the north, and altogether presents highly encouraging indications. We have also cleared the driving on the south lode home to the eastern end, which is 6 fms. from the cross-cut; the principal part of the back of the level has been taken away for the whole distance, and we presume it must have been very profitable; in the present end the lode is 18 in. wide, producing good stones of ore, and such other promising features as fully warrant its further development, with sanguine expectations of a most favourable result. There is a small shaft from the surface to this level, which will admit of a cheap and expeditious trial of this lode for 20 fms. under the present level, by a short line of flat-rods from the water-wheel. Considering the general and highly promising character of these lodes, the well-known productiveness of others immediately adjoining and traversing the same congenial stratum, no reasonable doubt can be entertained of our having a good and lasting mine, that will repay the adventurers for the outlay that may be required for its further development.

EAST SHARP TOR.—The ground in Hitchins' shaft, since my last, has changed from killas to granite, of a brown complexion, slightly decomposed, but compact, and is tolerably easy for sinking. The lode continues to underlay very regular, and carrying a good wall. The water is just the same as for the last three weeks past—about five strokes per minute.

EAST WHEAL GEORGE.—Having now come up from underground, I am sorry to inform you, that I have again been disappointed in going into the 23 fathom level, in consequence of so much water being in; the water was in fork on the morning of March 10, but as soon as the men commenced working it came away with such force that it again overpowered the engine; it appears now to be quite clear that nothing can be done in the bottom level before we have sent down another lift. The lode in the 12 fm. level, east of the engine-shaft, is of a very promising character, being 6 ft. wide, with two regularly defined walls, the north part of which is producing good work; since my last, stones of ore have been raised from the lode, upwards of 1 cwt.; the stopes in the back of the 12 fm. level, west of the engine-shaft, is still yielding 20*l.* worth of ore per fathom. We sampled at Lopwell Quay, Feb. ores, 21 tons 14 cwts. 3 qrs. dry ore. We have at this time on the floors undressed 40 tons of ore. We should increase our monthly returns if we could get more females for bucking; in this respect we are deficient of hands.

EAST WHEAL RUSSEL.—Our shaft is now below the adit level 6 fms. 1 ft.; the lode is looking very fine, producing more prian as we go down, with quartz, gossan, capel, and tin of good quality. We are making such rapid progress in sinking the shaft, that I hope it will not be long before we get down to the change we expect.

ESGAIR LLEE.—Our pay-day for January was on the 8th March. In my last I informed you the lode in the deep adit, east of Morgan's winze, was 3 feet wide, composed principally of slate, quartz, mundic, and spotted with lead, but not sufficient to set a value on; at the same time, there was a favourable indication in the present end—viz.: an increase of water, and I am glad to say during the last two or three days the above promising indications have been fully realised; the lode is so much improved as now to be equal to about half-a-ton of ore per fm., and presents a very promising appearance. The lode in the 12 fm. level, east of Morgan's winze, is 3 ft. wide, and spotted with ore, but not sufficient to set a value on; the stope in the back of this level, 6 fms. behind the end, is looking well, and yielding from 20 to 30 cwts. of ore per fm. The other stopes are looking quite as well as in my last, and will, on an average, yield from 10 to 15 cwts. of ore per fm.

HAWKMOOR.—The 30 fm. level east is driven 14 fms. from the shaft, and has averaged 3 tons of good quality ore per fm. for the last 6 fms.; it is now about 2 feet wide, composed of mundic, fluor-spar, and prian, carrying a good leader of ore, about 10 inches wide. We find, therefore, that the ore holds down from the 20 fathom level, where there is a course of ore in the bottom for 10 fathoms in length to be seen; when we can get a winze through, we shall have opened out a large portion of profitable tribute ground. The rise in the level west of the shaft is all but holed through; the lode is large, but not rich. The stopes in the bottom of the 20 fm. level are still looking well. We sampled yesterday (March 12), at Calstock, 26 tons 7 cwts. 3 qrs. of ore, the produce of the last four weeks.

HEIGNSTON DOWN CONSOLS.—There has been no lode taken down in the 45 fm. level since last reported upon. The lode in the 35 fm. level retains its size, but not quite so orey as last reported. The cross-cut south continues hard, and spotted with fine yellow copper ore. The lode in Hitchins' shaft produces occasional stones of ore, as also the lode in the 35 fm. level west of said shaft.

HENNOCK.—The engine-shaft is down 4 fms. 3 ft., the ground still favourable for sinking, with some good branches of lead dropping into the lode, and the water much less than last week. The lode in the 20 fm. level north is still producing some good work for lead.

HOLMBUSH.—Hitchins' engine-shaft is communicated to the 132 fathom level by a "borer hole," and having let down the water it will facilitate the sinking; and, in order to make speed, we have commenced rising against the shaft from the 132, and shall lose no time in making it all complete to sink below this level. We are still driving south in the 132 from the west end, to cut the caunter part of the copper lode. The lode in the stopes in the back of the level will produce 5 tons of ore per fm. We have commenced opening westward in the branch intersected some time since in the 139 fm. level cross-cut, north of the diagonal shaft, and find it improving as we proceed; it is 10 inches wide, and will produce 1 ton of rich copper ore per fm.; and, no doubt, as we near the cross-course it will be found much more productive; we shall drive east in it after the kibble can be sent to the level to draw away the stuff. This branch, or lode, being in a beautiful killas will throw great light at this level respecting the ironstone when extended east and west of the cross-course; cut some fms.—present price 6*l.* per fm. The flap-jack lode in the 120 fm. level, east of the cross-course, is 20 in. wide, producing stones of ore. No lode has been taken down in the 110 fm. level east since last reported on. The same lode in the 100 fm. level, east of the cross-course, is 2 ft. wide, producing 2 tons of ore per fm. The tribute pitches in the back and bottom of this level are improved. The lode in the 110 fm. level, west of Wall's shaft, is 5 ft. wide, composed of mundic, spar, blende, and stones of copper ore. Wall's shaftmen are cutting ground for penthouse, tram-road, &c.

KIRKCUDBRIGHTSHIRE.—The lode in the 74 end, west of Stewart's, is 2 ft. wide, worth about 5 cwts. of lead to the fm. The lode in the 62 end, west of Gilpin's, is 3 ft. wide, with good stones of ore. The lode in the rise in the back of the 50 end west is 5 ft. wide, yielding 10 cwts. of lead to the fm. The lode in the 40 end west is 4 ft. wide, making about 12 cwts. to the fm. There is no change in the 30 end yet. We have shipped off a cargo of ore this week.

LEWIS.—The new lode in the 80 fm. level, west from copper ore shaft, is 8 in. wide, producing good stones of tin. Cock's lode in the 70 fm. level, east from copper ore shaft, is 6 in. wide. The south lode in the rise at tin shaft, in the 50 fm. level, is 10 in. wide, opening tribute ground. The new lode in the 40 fm. level, west from copper ore shaft, is 18 in. wide, producing good work for tin. Cock's lode in the 40, east from copper ore shaft, is 5 in. wide, opening tribute ground. The new lode in the 30 fm. level, west from copper ore shaft, is 20 in. wide, opening good tribute ground. The new lode in the 20 fm. level, west from copper ore shaft, is 15 in. wide, producing good work for tin. The copper ore lode, west from copper ore shaft, is 1 ft. wide, producing good work for copper ore. We have commenced sinking tin shaft under the 70 fm. level, and hope to have it holed to the 80 by the end of the present month. We shall sample 30 tons of tin at the usual time, which will leave a handsome profit to the adventurers. The tribute ground is looking well. Our last sale of tin ores, 30 tons 14 cwts. 1 qr. 19 lbs., realised 163*l.* 8s. 11d.—leaving a profit on the month's working of 51*l.* 8s. 5d. to the adventurers.

NANTEOS.—The lode in Taylor's shaft is 5 feet wide, producing 5 cwts. of lead ore per fm. The 40, 30, and 15 fm. levels east are producing but little ore in the ends at present. The stopes generally are producing about 8 to 10 cwts. of ore per fm.

NEW COPPER BOTTOM.—Our great east and west lode is much richer than last week. The specimens of ore brought me this morning are such as would induce any mining gentleman to give 5*l.* per share, without any hesitation.

NORTH BASSET.—From our setting on Friday last, it will be seen that we have 83 men sinking and driving at tutwork, that we have set five pitches in the back of the 72 fm. level, east and west of the new shaft, to 20 men on tribute, varying from 2s. to 2s. 6d. in 1*l.*, and that we have set 17 other pitches to 38 men on tribute, varying from 6s. to 12s. in 1*l.* We have been busily engaged in completing the new shaft to the 72 fm. level, and have taken down no part of the lode in the 82 fm. level during the past week; the lode in the rise in the back of the 82 fm. level is 5 ft. wide—a good lode of grey and black ore. The lode in the 72 fm. level is 3½ ft. wide—a good lode of grey and yellow ore. The lode in the 62 fm. level is 2 ft. wide; in the winze sinking below the 62 it is 3 ft. wide—a beautiful course of grey and yellow ore; and in the winze sinking below the 72 is a good lode of grey ore, 4 ft. wide. All our other levels look well; and the mine throughout never before presented such prospects.

NORTH BULLER.—In driving the adit south towards King's lode, we find the ground to be more favourable than in the direction we were driving previous to last setting: it is on a beautiful large cross-course, with a good leading wall on the western side, of which we entertain a very sanguine opinion: we feel not the least doubt of its being the means of making a fine course of ore. The men have sunk about 9 feet in Louisa engine-shaft since our last report, and the ground is much the same as it has been for several weeks past.

NORTH WHEAL FRIENDSHIP.—Since my last report, the lode in the 30 fathom level, driving west from Buller's shaft, has been cut off by a cross-course; we have driven on it about 2 fms., and have again met with the lode, which has a very promising appearance, producing beautiful stones of rich copper ore, and worth nearly 1 ton per fm. The lode in the 12 fm. level, north from Job's shaft, is 3 ft. wide, spotted with lead, but not of much value. We are still driving by the side of the lode in the 32 fm. level, north of machine-shaft, but intend cutting into it shortly. The lode in deep adit level, towards the great copper lode, continues rather hard, but I hope to have it more

favourable as we get near the western cross-course. The pitches are looking just as usual, and we hope to have another parcel of from 15 to 16 tons of lead ores ready for sale by the latter end of this month.

OLD WHEAL BASSET.—There is an improvement in the level driving west on the red lode; the lode for the last 6 feet driven has been about 10 in. wide, with a branch of rich ore in it varying from 2 to 4 in. in width, and the end is equally good; the ground opening in this level will set at fair tribute.

PETER TAVY AND MARY TAVY.—Since my last, the ground in the shaft is without alteration; the lode is about 2 ft. wide, carrying regularly defined walls, composed of peach, spar, mundic, and occasional spots of yellow ore; the sumpmen have sunk 2 fms. out of the last 4 fms. taken, which leaves, as far as I am able to ascertain, 7 fms. more to sink the shaft as deep as the bottom of the winze. I beg to urge on the sinking of the shaft with all possible speed, as has been done since we commenced operations, in order to prove, as soon as possible, the ground at a deeper level, particularly below the bottom of the winze, as we have seen some very promising stuff taken from that point. In costeaning in Cole's land, we have opened on the backs of two lodes—one is in all probability the back of our present lode, the second is near the north boundary. We shall next search by costeaning further west, for the back of the lode driven on in the Poor Men's adit; after this I purpose to search further, in order to fully ascertain if there be not still other lodes in this ground, before sinking the new shaft in Cole's land. The machinery is in good order, and working well.

SOUTH WHEAL TRELAWNY.—Since we last inspected this mine, the 0 fm. level has been driven south from the engine-shaft, on the course of some irregular branches, it is now extended 19½ fms. from the shaft, where the ground is more settled; we, therefore, think cross-cuts should be commenced east and west to ascertain if there be any more lode, and if none should be found, we see nothing to warrant anything more being done at this point. We find you have 114 fathoms in length from the engine-shaft to the northern boundary, in which an adit was driven some time ago on the course of the lode; an adit shaft was also sunk on its course, near the northern boundary, and from both these operations good stones of gossan were produced, and in places a very kindly lode. Now, taking this into consideration, the circumstance of its being over the slide, which is near the shaft (and which has so much deranged the lode and ground), and also the circumstance of its being so much nearer to Mary Ann Mine, we think this a piece of ground that warrants more being seen of it—which could be done by sinking the adit shaft on the course of the lode during the summer season, by virtue of a whim to draw the stuff and water, or otherwise, by extending the 30 fm. level northward from the present end, which is now only 29 fms. from the shaft, consequently there are nearly 100 fathoms more to the boundary, and which is room enough to contain a good-paying bunch of lead.

PENRALT.—The lode has much improved in the deep level going east into the hill, the last 3 fms. driving producing fine stones of lead, mixed with spar; the end is at present 6 fms. west of the winze in the shallow level, where we have good ore going down, and will produce half-a-ton per fm. In the shallow level we are without much alteration, the lode is stronger and larger as it goes east into the hill.

TAMAR SILVER-LEAD.—In the winze rising in the back of the 205 fm. level the lode is 18 in. wide, producing rich work. In the 190 end the lode is small and poor. In the 175 end the lode is 1 ft. wide, composed of flookan and spar, with spots of ore. In the 160 end the lode is still about 4 feet wide, saving work, and of a moderate quality. In the 145 fathom level end the lode is 2 ft. wide, 6 in. of which is good saving work. Spurgin's shaft is sunk 2 fms. 2 ft. below the 160 fm. level; the lode at this point is 1 foot wide, composed of flookan, intermixed with good stones of ore. At the north mine, in the 90 fm. level, driving north, the lode is 1 ft. wide, composed of capel, with small strings of silver-lead ore. In the 80 fm. level the lode is 2 ft. wide, 1 ft. of which is rich work. In the 70 fm. level the lode is 3½ ft. wide, composed of capel and fluor-spar, with good cubes of ore. We sampled on Saturday, the 1st inst., computed 70 tons of rich silver-lead ore, samples of which have been sent to the different smelters, and was sold on the 11th, at 20*l.* 2*s.* 6*d.* per ton, realising 1408*l.* 15*s.*

TINCROFT.—Highburrow tin lode, at the engine-shaft, sinking under the 152 fm. level, is 6 ft. wide, worth 15*l.* per fm. In the 142 fm. level, east of Martin's east shaft, the lode is 4 ft. wide, worth 18*l.* per fm. In the 132 fm. level east the lode is 4 ft. wide, worth 35*l.* per fm. In the winze sinking under the 120 fm. level east the lode is 4 ft. wide, worth 15*l.* per fm. for tin and copper. Chapple's lode, in the 120 fm. level, west of engine-shaft, has improved, and is 4 ft. wide, worth 18*l.* per fm. for tin and copper. In the 100 fm. level, east of Downright shaft, the lode is 2½ ft. wide, worth 8*l.* per fathom for tin; in the 100 west the lode is 4 ft. wide, saving work for tin; in the winze sinking under this level the lode is 5 ft. wide, worth 12*l.* per fm. On Grout's lode we have put the men to cut north in the 70 and 80 fms. levels, and shall speedily commence to take down the lode. At North Tincroft the lode in the engine-shaft, sinking below the 110 fm. level, is 3½ ft. wide, with spots of ore. In the 100 fm. level east the lode is 3 ft. wide, worth 10*l.* per fm.; in the west end, same level, we have intersected the cross-course, and the men are driving south to cut the lode, which is about 3 fms. distant; in the 100 fathom level, east of Willoughby's shaft, the lode is 2 ft. wide, worth 6*l.* per fm.; this end we have about 10 fms. to drive to get under the run of ore ground gone down in the bottom of the 90; in the 100 fm. level, west of engine-shaft, the lode is 6 ft. wide, worth 20*l.* per fm. In the winze sinking under the 90 west the lode is 3 ft. wide, worth 15*l.* per fm. In the winze sinking under the 90, on the south lode, the lode is 3 ft. wide, unproductive. At Palmer's shaft, sinking below the 100 fm. level, on East Pool lode, the lode is 2 feet wide, producing good stones of ore.

TRELAWNY.—Since our last report we have had very good ground in Trelawny shaft; it is now down 5 fms. 4 ft. below the 92 fm. level. In the 92 end north the lode is 3 ft. wide, and worth 8*l.* per fm.; in the south end, at the same level, the lode is 3½ ft. wide, and worth 9*l.* per fm. In the 82 north the lode is 4½ feet wide, and worth 9*l.* per fm. At the north mine, in the 68 end, north of Trehane, the lode is 3 ft. wide, and worth 10*l.* per fm. Smith's shaft is sunk 6 fms. below the 55 fm. level, the grownd much as before. The 55 end men are employed rising on the back of the level, as noticed last week. In the winze in the bottom of the 40 the lode is 1 foot wide, and worth 4*l.* per fm. The stopes throughout the mine are much as usual. We sampled on Saturday last two parcels silver-lead ores—No. 1 crop, computed 100 tons; No. 2, common, computed 40.

TRELEIGH CONSOLS.—Christoe Lode: In the 100 fathom level, west of Garden's, the lode is 15 in. wide, with stones of ore. In the 90 fm. level, west of ditto, the lode is 2 ft. wide, worth 18*l.* per fm. In the 70 fm. level, west of ditto, the lode is 1 ft. wide, not much ore: these men will sink a winze below the 80 fm. level next week, to ventilate the 90 fm. level.—Parent Lode: At Parent engine-shaft, below the 52 fm level, we are sinking in the country. In the 30 fm. level, east of ditto, we are drivin' in disordered ground. At Burgess' shaft, from surface, we are sinking in the country.

TRELOWETH.—The ground continues good for sinking the engine-shaft below the 32 fm. level. The ground in the cross-cut is much harder than last week, consequently our progress is impeded.

TYWARNHAYLE AND NANCEKUKE.—The 100 fm. level east has not yet entered the run of ore ground seen in the 90. The 100 west is producing 1½ tons of ore per fm. The 90 east is producing 6 tons per fm. In Bennett's shaft there is a hard capel at present, but still it is opening good stoping ground. The 80 east is producing 1½ tons of ore per fm.; the 86 west 2 tons per fm. A winze below the 80, on the caunter lode, 4 tons per fm. The 80 east of James's shaft 2 tons per fm. The 60 east on Taylor's lode 1 ton per fm. The pitches on the lead lode in Wheal Sparrow continue to turn out beyond expectation.

WEST GOGINAN.—The south lode in the deep adit level, east from the shaft, is 5 ft. wide, composed of killas, spar, gossan, jack, and small branches of lead ore. The level driving east from the shaft, on the north lode, has a very similar appearance to the south lode—looking very promising.

WEST WHEAL JEWEL.—There is no lode taken down in the 70 fm. level, west of Williams's cross-course, on Wheal Jewel lode, for the past week; when last taken down worth 5*l.* per fm. In Carkeek's winze, sinking below the above level, lode producing good stones of yellow ore. The 57 fm. level, west of Hodges' cross-course, on Tolcarne tin lode, is worth 5*l.* per fm. The rise in the back of this level, on the same lode, is worth 26*l.* per fm. The 57 fm. level, east of Hodges' cross-course, on the same lode, is worth 4*l.* per fm. The stopes east of Tregoning's shaft, in bottom of 12 fm. level, on same lode, are worth 26*l.* per fm. The stopes in bottom of this level, west of Tregoning's winze, on same lode, are worth 23*l.* per fm. These stopes are working on tribute.

WEST WHEAL TOWAN.—There has been no lode broken in any of the levels since last report. Caroline's shaft is down for a 15 fm. level, and a cross cut commenced north towards the lodes. The ground in the 20 fm. level and adit cross-cuts, and also in Taylor's shaft, continues favourable. The progress of the stamps, railroads, and other surface works, is satisfactory.

WHEAL ADAMS.—The 72 fm. level, which is 3 fms. 1 ft. 6 in. from the south boundary, consists of friable quartz, and about 2 tons of lead per fm. We are carrying about 5 ft. of the lode. As soon as we drive to the boundary, cross-cuts east and west will be made. Although large quantities of water issue from the lode, yet the 60 is not drained: from this and other circumstances, it is evident we are not driving on the main part of it. The lode is, no doubt, very large at this point, and its value, therefore, cannot be ascertained until the cross-cuts named above are made. We have commenced driving the 72 north of the engine-shaft, at 2*l.* per fm., for the purpose of reaching the second shoot of ore discovered in the upper levels, and fast dipping towards the said shaft. The 50 and 28 are also set to drive north, and at the 40 we are cross-cutting the lode. The promising and productive lode gone down in the level above raises our expectations of finding much lead in this level. The setting sheet will show that we have made such arrangements to develope the lode in this part of the mine as will, we anticipate, give you satisfaction, and in our next report each bargain specified in the sheet will, necessarily be fully particularised. The winze in the 60 is being carried down about 10 feet wide, and 6 feet on the course of the lode, which ground will produce, 6 feet in depth, from 8 to 9 tons of ore per fathom. At Aller, we are cross-cutting east, in mineralised ground, intersecting branches of quartz, containing much mundic, and spots of copper pyrites of good quality. The surface operations are going on satisfactorily.

WHEAL AUGUSTA.—The lode underlays south 16 in. in a fm. under the adit level. We have sunk a fork in the bottom of the 18 fm. level, 12 ft. long by 7 ft. wide and 7 ft. deep, where we have fixed a plunger lift for drawing off the water. We have extended the 18 fm. level east 4 fms., where the lode is from 10 in. to 1 ft. wide, and produces excellent stones of tin, and the end has a good appearance; we shall cut a new lode in 8 or 9 fms. driving—an excellent tin lode. To the west of the engine-shaft we have extended a level on the course of the lode 13 fms. 3 ft. 4 in.: the lode is 2 ft. wide, and produces a good quantity of tin ore. We have an excellent course of tin in the bottom of the 18 fm. level west, from 6 to 7 fms. in length, where we have broken rocks of tin from 3 to 4 cwts. of superior quality. We have sunk our engine-shaft under the 18 fm. level 4 fms. 2 ft., where the lode has a good appearance. We commenced spilling in the 10 fm. level, east of the engine-shaft, on the 4th of March, where we discovered an excellent bunch of tin. We have been stoping the 18 fm. level west, where the lode is 2 ft. wide; driving our 18 fm. level west we shall cut two lodes in about 20 fathoms, where a good quantity of tinstuff has been raised. On driving those lodes about 50 fms. west, we shall cut two good tin caunter lodes. There are seven other lodes besides those already named in the sett, and I consider when the mine is fully thrown open it will make one of the finest tin mines in the county of Cornwall.

WHEAL CREBOR.—It gives me much pleasure to be able to inform you that, in the few days driving the 54, or adit end, we have every prospect of realising all we have anticipated; the lode already seen is full 4 ft. wide, saving work for copper. It appears we are about the junction of two or three more of the lodes. Being but a short time driving, I cannot speak so positively on that point as I hope to in my next. The cross-cut driving in the 40 fathom level, to communicate with the rise, is not yet completed; we have about 4 ft. more to drive; we hope to hole this week; after which, I intend to put the men to drive south to cut the main lode, which I expect is heaved in that direction. The lode in the 12 end at Cock's is still large, and of a promising character; it underlies still south about 2½ ft. to the fathom. The other parts of the mine, being chiefly driving cross-cuts, are just as last reported. The dressing department is going on tolerably with preparing for another sampling. We have about 30 tons of copper ore at grass. The engine, pitwork, and all the other machinery, are in working order.

*Half-past Two.*—The lode in the 54 is increasing in size and quality—now between 5 and 6 ft. wide, good work. I believe we are about the junction of several lodes; if so, look out for a quantity of it. The men are now up.

WHEAL FORTESCUE.—Since the meeting of adventurers on the 6th Dec., we have put in new crank, line of rods from the wheel to the shaft, new balance-bob and nearly 50 fms. of wood rods in the engine-shaft, cisterns, and other necessary work, preparatory to sinking below the 40 fm. level; we have also made the other necessary alterations of pitwork in the shaft. The engine-shaft is sunk 3½ fms. below the 40 fm. level; the price now paid for sinking is 15*l.* per fm.: from the present character of the ground, which is a light blue killas, it will require about 2½ months to reach the 50 fm. level. The 40 fm. level cross-cut south, driving towards the south lodes, is extended 20 fms, 2 ft.; as yet no lode has been intersected; the stratum is very congenial for ore, and we are led to believe that when the lode is reached it will prove productive: six men are employed in this end, at 8*l.* 15*s.* per fm. The cross-cut, driving north in the 40 fm. level, continues in a favourable stratum of killas, and is now extended 35 fms. 2 ft. north of the shaft, or 27 fms. north of the last lode intersected: six men are employed also in this end, at 8*l.* 15*s.* per fm. The 40 fm. level is driven west on the course of the lode 22 fms. 3 ft., and which is composed of mundic, quartz, and prian, with a small quantity of copper ore. We have commenced shoding at Slooe, and have cut a lode from 3 to 4 feet wide, composed of good gossan, in the first pit we opened on it. On shoding further east, we do not find the lode so promising as when first discovered, and we have now put the men to shode further north to cut the Lamheroge A lode.

WHEAL HAMLYN.—We have now discovered our great east and west lode at the surface, and find it is north of the adit level, as we first anticipated—consequently, we have again commenced to drive east on the caunter lode, where we have about 3 fms. further to drive before we cut it.

WHEAL MARY ANN.—The lode in the 70 fm. level, north of Pollard's shaft, is 3 ft. wide, worth 8*l.* per fm.; in the same level south it is 2 ft. wide, and worth 7*l.* per fm. The lode in the 60 fm. level, south of the shaft, is 1½ ft. wide, and worth 5*l.* per fm.; the lode in the winze sinking under this level is 1½ foot wide, and worth 8*l.* per fathom. The lode in the 50 fm. level, south of the shaft, is 3 ft. wide, and worth 6*l.* per fm.; the winze under this level is holed to the 60 fm. level. The lode in the 70 fathom level, south of Barratt's shaft, is 3 feet wide, and worth 10*l.* per fm. The stopes throughout the mine are usually productive.

WHEAL PROVIDENCE.—The men have nearly completed cutting down the shaft, and will soon be ready to fix the house water-lift. The smiths, carpenters, and all others are getting on with all possible dispatch.

WHEAL RUSSELL.—We have not yet cut the lode in the cross-cut in the 48 fm. level, but during the last fortnight several branches have been driven through—one in particular, 4 in. wide, of nearly solid copper ore, and last night some beautiful stones of lead ore were broken from the present end. In driving east and west in the 48 fm. level, on the lode first met with in the cross-cut, we find it producing ¼ ton of ore per fm. The lode in the 37 fm. level, driving east from the engine-shaft, is 6 ft. big, orey throughout, and producing 1½ ton of ore per fm.; but the water now issuing from it is very powerful, and much impedes our progress; in driving north on the cross-course, in the 37 fm. level, a lode is running parallel to it, containing portions of copper ore. Four men have been set to stope the bottom of the old workings on what is called the Slimeford lode, where they are breaking some excellent stones of ore; the size of the lode we cannot at present say, as the walls are not properly defined. The pitch in the bottom of the 37 fm. level is looking well, and those in the back over it are just as last reported.

WHEAL VINCENT.—We are about 4 fms. below the 10 fm. level with our new engine-shaft; the ground still remains hard, but I am in hopes we shall get through it again in a short time. I cannot say the exact time it will take to sink to the 20, as the ground is so very changeable. We may not sink more than 3 feet deeper, where the ground may change, which may enable us to sink in one week as much as we can now in one month; for the nearer the lode, the better the ground is. At present the lode in our west end is 18 in. wide, producing tin, and appears to be increasing in size and quality; and I believe we shall not drive much further before we have a very productive lode for tin, for there is at present every indication of it; this end has been driven through a long bunch of tin, 35 fms. in length west of the engine-shaft, and also 20 fms. east, which amount to 55 fms. of good tin ground; but our greatest prospect is still a-head—viz.: our caunter lode—and which is about 85 fms. further west of us. The streamers have gone over the back of this lode, and have raised a large quantity of tin, so that the proprietors have realised a large amount of dividend, evidently from no other source than this lode. Judging from the present appearances, there is every reason to believe that the adventurers of Wheal Vincent will share a large amount of profit, also after we get to the 20 fm. level. We have another very good speculation, as I have been informed by the streamers, and that is another lode about 12 or 14 fathoms further north of our present working lode. The streamers have also gone over the back of this lode, and have taken up a quantity of tin, which they affirm was from this lode. The reason we have not cut this lode in the 10 is for want of engine-power; also, we are now engaged in stoping [the back of the 10 fm. level, and found it very good for tin, considering it being so near the surface. We have at this time at the surface from 12 to 15 cwts. of tin; and, by the end of this month, we hope to have 2 tons.

## FOREIGN MINES.

ALTEN MINING ASSOCIATION.—Estimated produce for January:—

| Mines. | Tons of Ore. | Per Cent. | Fine Copper. |
|---|---|---|---|
| Raipas | 20 | 5 | 1·00 |
| Old Mine | 80 | 5 | 4·00 |
| United Mines | 7 | 5 | 0·35 |
| Michell's | 5 | 5 | 0·25 |
| Total | 112 | | 5·60 |

*Mining Report from the 20th Jan. to the 3d Feb.*, 1851.

*Raipas.*—Capt. Monks report runs thus:—The mine sett continues to wear a gloomy aspect, and some of the bargains have fallen off considerably in value within the past fortnight. In the great stope, west of Monk's shaft, we have met with a large facing, which has thrown the lode in a contrary direction to what has hitherto been its run, and which has disordered it so much that it will take some time before we shall be able to bring it to a proper working condition. In the winze below the 20 a slight alteration has taken place for the better, in that the ground has become less hard for driving. In No. 11 we have sunk to the depth of 4 fms. below the 20 workings; the ground, however, still continues much disordered, and until we get deeper, and the strata become more settled, no great benefit can be derived from this bargain for the present. In the shallow adit workings the lode is very fluctuating, which is solely owing to the frequent changes which are continually taking place in the run of the strata; the consequence is, that the ore we are at present producing from this bargain is of a very low quality. In other parts of the mine no alteration has taken place since my last report.

*United Mines.*—We have still no improvement to note here, but trust shortly to have the pleasure of reporting more favourably. In the foot stope under the 10 fm. level the ground still continues of a hard dredgy nature; consequently, we have been disappointed in the produce which we had here hoped to have obtained. The eastern level is again deteriorated, and we have found it advisable to suspend its further prosecution for the present, as we can employ the men more advantageously at the Old Mine.

*Old Mine.*—The prospects have improved generally, and the quality of the returns is somewhat better. The sink to the north east continues good, and the prospects have never presented a more permanent appearance. Slungi's sink is not looking quite so promising. The new sink between Slungi's and Davola's is making about 4 tons of ore per fm., with very promising indications. The stopes above the adit continue satisfactory, and the result fully answers our expectations. The workings above the Bergmester's are not quite so promising as we could desire, the lode having deteriorated. The new sink to the south of Slungi's is greatly improved, but the lode is of a very hard nature, and in consequence the progress made is slow. No alteration is to be observed in the adit level since my last.

*Michell's.*—The operations at this place are very confined, and the produce is in consequence trifling; the prospects are not very encouraging. We have suspended the adit level for a time, for the purpose of employing the men at the Old Mine.

## QUÆNANGEN MINING ASSOCIATION:—

*Jan.* 31.—Since my last, of 20th inst., I have arrived at Quænangen, and examined the mines, and although a short time since there was some falling off, have found our prospects to continue very good. As you have been already informed, the ore in lode C has deteriorated in particular, and, about 14 days since, almost entirely disappeared, as also the ore in the working on the new lode; but in the last few days the ore has again improved in both places, so that it is now nearly as good as before. We continue to indulge in the expectation of permanency in both places. In consequence of the temporary falling off of the ore in lode C, we have not raised in December or January the half that we calculated upon, and there will be, of course, less ore from the new lode, so that we fear that we shall be hardly able to produce the 16 tons refined copper ore engaged for, unless there is a marked improvement in the next two or three months. This circumstance, however, can have no influence on our future produce, as the principal lode on which our expectation is based is not yet reached. Besides, I assumed as quite certain that, by the expiration of May, from the C lode and the new lode alone, we shall raise so much ore as to make up the promised 16 tons. The other workings continue much as before.

## LINARES MINES.—The following has been received from Capt. Curry:—

*Pozo Ancho, March* 1.—San Thomas engine-shaft is now down 9½ fathoms below the 31 fm. level; our progress in sinking this shaft may be considered satisfactory. The cross-cut in the 45 fm. level has been driven to its extent under this shaft, and a contract entered into to open ground to dimensions of the said shaft, also for apparatus of plungers, &c., which will be fixed at this level; when this shall have been completed we purpose commencing to sink below this level simultaneously with the part above, so as to have our engine-shaft complete to the 55 fm. level with all possible haste. The cross-cut at San Juan, 45 fm. level, has been communicated; the men are now employed opening a little here for a plat, when finished we shall then be in a position to open and clear our workings to the west of this shaft, where we have a fair prospect of meeting with a long piece of productive ground. Wilson's shaft is now down between 8 and 9 fms. below the 45 fm. level, nearly the whole of which depth has produced from 5 to 9 tons per fm.; at present the bottom is not so productive; the lode is still large and soft, yielding from 2 to 3 tons of lead per fathom. Our 55 fm. level, driving west of San Anton winze, is still large and promising, yielding on an average from 2 to 3 tons per fathom; the east end, in this level, has not been driven for the past week, our Englishmen having been employed about other work requiring immediate attention; in this level the lode is also large with fine bunches of lead, and producing from 1 to 2 tons per fathom. Shaw's shaft is now down from 11 to 12 varas below the 45 fathom level; in this the lode is still large, but hard and unproductive. In our 45 fathom level, east of this shaft, we have a beautiful and productive lode, worth at least 6 tons of lead per fm., with every ingredient calculated to make up a pretty lode; this has been let to drive, on the tribute alone, price 1½ real per arroba, ½ real for dressing, leaving about 18*s.* per ton clear to the men. We are clearing and securing our 31 fm. level east through the old workings; the backs have so far been carefully taken away, and must have been very productive by the vast excavations made. We have seen but a short piece of the bottom under these workings as yet, but where seen the lode is large and good, yielding from 5 to 6 tons per fathom; this, with the discovery lately made in our 45 fm. level (a little behind and under this place), has tended to improve greatly our prospects in this part of the mine, and which may now be calculated good. I am glad to say our tribute department still continues to look well; we have 11 contracts at an average tribute (according to calculation of raising) of 1*l.* 10*s.* 10*d.* per ton, dressing included. Our raisings for February are 130 tons, and we may safely calculate on 140 tons for the current month.

Ore in stock at Linares, February 22, 337 tons 14 cwts.; weighed in, March 1, 36 tons 19 cwts.=374 tons 13 cwts.—sent for shipment, 3 tons: remaining at Linares, 371 tons 13 cwts; at Baylen, 16 cwts.; at Seville, 214 tons 13 cwts.; at Malaga, 59 tons; at Newcastle, 43 tons 8 cwts.: total, 689 tons 10 cwts.

## NATIONAL BRAZILIAN MINES.—Dated Dec. 26; received March 10.

*Cuiaba.*—We are now opening on the south side of Hartley's level to the wall of the lode, in order to sink a winze, that we may get down to make a communication with Hitchens' level as soon as possible. Although we have immense stopes before us, yet our belief is that there is much richer stone in depth.

At *Cocaes*, we have a splendid 30-ft. stamps' wheel, working 12 hours only, which, if not required in its present situation, can be easily removed to this place, and rendered more available, by the application of tooth and pinion gear. By this arrangement the wheel could very effectively work 24 heads, capable of pulverising at least 40 tons of ore a day, or 1200 tons per month, which, of itself, allowing ¾ oitava of gold per ton, would leave upwards of 14 marcos a month; and should the lode fortunately improve in depth, of which there is every probability, more than 18 marcos a month would be obtained from one stamps only.

Cuiaba produce from 7th to 26th Dec., mks. 7 0 6 32; ditto Cocaes, mks. 1 3 5 66: total, mks. 8 4 4 26.

## ROYAL SANTIAGO MINES.—Dated Jan. 27, and received March 11:—

*Perseverancia.*—Thompson's shaft is developed about 4 fms. below the 22 fm. level; the lode is 3 ft. wide, composed of strong yellow copper and sulphur pyrites, yielding 4 tons of ore per fm. The water has very much increased during the last few days; the stratum is greenstone, being very compact and hard. West from shaft, about the 22 fm. level, the lode is 9 ft. wide, and very compact, yielding 10 tons of ore per fm.; east from shaft, in the same level, the lode is from 7 to 8 feet wide, interspersed throughout with veins of yellow copper and sulphur pyrites, yielding 3 tons of ore per fm. In the winze developing between the 22 and 32 fm. levels the lode is from 4 to 5 ft. wide, and is in a disordered state, yielding 3 tons of ore per fathom. The lode in the stopes in the back of the 22 fm. level is from 2½ to 3 feet wide, yielding 4 tons of ore per fm. West from shaft, in the 10 fm. level, the lode is small and unproductive. In the winze developing between the 10 and 22 fm. levels the lode is 2 feet wide, composed of yellow copper and sulphur pyrites, yielding 3 tons of ore per fathom. We are encountering a large stream of water issuing from the south and west of the operations, east from shaft about 25 fms., and in the 10 fm. level we are excavating a cross-cut south, so as to ascertain whether the south lode continues its course or bearing 21° north of east or south of west; the stratum is very promising, and easy to explore. The winze from shaft is developed to the depth required, and we have placed the men to excavate west in the shallow adit in San Joaquin. The lode in the winze east from shaft, developing between the adit and 10 fm. levels, is 2 feet wide, composed of grey oxide pyrites, yielding 2 tons of ore per fm. We have resumed developing Goldsmid's shaft below the San David adit; the ground is easy to explore, and is let to native miners at 8*s* per yard.

*San Joaquin.*—Taylor's shaft still continues to discharge a large quantity of water; the strata is without alteration since last reported. In the cross-cut from shaft, in the deep adit excavating east of south, we are encountering a large stream of water; the ground is favourable, and easy to explore.

*Angelita.*—The lode in the adit is not yet excavated to the south wall; what has been extracted is composed of gossan, iron pyrites, and grey oxide of copper; strata favourable

## ST. JOHN DEL REY MINES.—Dated Dec. 18th, received March 10th:

*Morro Velho.*—Gold extracted to date, 6850 oitavas, from 409·26 cubic feet of sand (result of 10 days' stamping)=16·73 oitavas per cubic foot. Stamps working, 17 days, average 93·62 heads. The supply of stone continues abundant; and, from the daily reports made to me, as well as from my personal inspection, I had reason to believe that its quality was fully equal to that of the preceding month. If we are to judge, however, by the above-stated produce for the first 10 days of this month, the stone must have been considerably worse than that of November—plainly showing that even those persons whose experience ought to entitle their opinions on such matters to the greatest consideration, are often much in error in judging of the value of our stone from its appearance on the floors. You will see by my diary of the 15th and 16th that we have had one of those falls of rain, the fury of which can only be appreciated by those who have lived in a tropical climate. We have suffered a little damage, and consequent loss of duty from our stamps; but on the whole, I am glad to say, our regos have withstood the attack gallantry. In justice to Captain Treloar, I cannot avoid adding that nothing could exceed his exertions on this occasion.

*Dec.* 28.—Gold extracted to date, 13,583 oitavas, from 799·8 cubic feet of sand (result of 20 days' stamping)=16·88 oitavas per cubic foot. The stoppage occasioned in the working of our stamps, in consequence of the damages by the heavy rains of the 15th, have injuriously affected the produce of the last 10 days. Stamps working, 27 days, 93·36 heads. The supply of stone from the mine has fallen off considerably, in consequence of the absence of the Brazilian borers holiday making; and I regret to add that its quality has deteriorated in proportion. After the holiday, however, I look for a considerable improvement in both the one and the other.

## UNITED MEXICAN MINING ASSOCIATION:—

*Guanaxuato, Jan.* 31—Mine of Ratas.—I enclose the usual monthly report on the mines generally, by Mr. Parkman. Throughout the month this mine has continued poor, both in the quantity and quality of its produce, and presents no very promising aspect of immediate improvement. The sales with buscones are declining weekly, and, should they fall much below the present point, may have to be discontinued altogether. The changeable character of the mine may, however, produce some mutation, both favourable and unexpected. The monthly liquidation corresponding to December shows an excess of returns over expenditure of $41,034 1 1.

Mine of Aldana.—The very limited work of exploration, referred to in my last letter to the court, has been carried on throughout the month on the lowest scale of expense, and has manifested nothing worthy of report.

Mine of Jesus Maria y Jose.—The works prosecuted to reach the vein have not, as yet, attained that desirable end, but are being conducted with the greatest economy, compatible with the object in view.

Mine of Fromontorio.—The new tract of virgin ground, adverted to in the last two letters to the court, has not, as yet, been delivered by the owners, who are now engaged in legal proceedings against certain persons, who contest their right to dispose of it. If I have fixed a date for the said delivery, which, if not complied with by the owners, I shall give them the necessary notice of abandonment. In the meantime, the weekly expenses are insignificant.

Mine of Trinidad.—Indications of a proximity to a branch of the vein have manifested themselves in the cross-cut from the shaft, but are not, as yet, of a sufficiently decided character to require more than a simple allusion to the fact.

Mina Grande.—The workings in ore in the north and south frentes of San Luis, as well as in the pozo of the same, have been discontinued, owing to the ore having given out. In the pozo of La Bomba, an unfortunate influx of water, which had accumulated in an old working, has retarded the operations, carried on with the object of reaching the principal vein; when this temporary difficulty is overcome, I hope to be able to report good tidings in respect to this speculation.

*The following is a Report on the State of the Workings for January.*

Ratas—*Buscones.*—There has been during the past month a decline in the sales of buscones' ore, in part ascribable to the poorness of the points in which their men work, but also in part to the decrease of competition among purchasers, while, at the same time, there are well founded reasons to suppose that the ore is paid at its full value.

*Frente of San Cristobal.*—This work has advanced 8·88 varas, in vein so poor that we have thought it advisable to suspend it for the present.

*Santo Toribio Pozo and Frente.*—This work has advanced 9·96 varas, and in the last three weeks has been again changed into its original direction as a frente to the south-east. Thus far the vein is poor, but not unpromising in character.

*Workings in Ore.*—In San Cristobal, San Crecencio, and Santa Rosalia, the ore obtained consists of small threads, ramifying the upper wall of these workings. The quantity derived therefrom is small, but the quality is fair. The workings of Santa Isabel and San Diego continue, as in last month, the principal source of produce. The ore is here found in bunches or in threads, much ramified, and is, therefore, obtained at much expense. Two frentes which have been driven to the north-west from the contra cielo of La Purisima have lately improved materially. The direction in which this improvement has taken place is fortunate, as there is a larger space of unworked ground than to the south-east, and less probability of coming in contact with the rights of Promontorio. The number of barmen have continued the same as in last month, and the produce of dressed ore remitted to the haciendas amounts to 4·100 cargas in five weeks.

Aldana.—In this month, as in last, the trial of the vein in this mine has been limited to the cross-cut of Santo Toribio, which has advanced 13·02 varas without meeting with the lower walls of the vein. The rock is at present hard and unpromising.

Mine of Jesus Maria.—The cross-cut of San Ignacio has advanced 9·55 varas, and, as yet, presents no indications of the vein. This work is now advanced 66·90 varas from the bottom of the shaft towards the vein, and cannot be distant therefrom, so far as we are enabled to judge from the appearances on the surface, which are by no means satisfactory as to the precise position of the vein, otherwise we should have given the result of a measurement which at least would be an approximation. The cross-cut from the mine has in the meantime advanced 12·61 varas, in more favourable rock for driving, and has cut a small vein which has an underlay very much greater than that of the principal vein. It is inferred that this small vein (although of a promising appearance when cut in this working) does not deserve further trial, from the fact that it was passed through in the lower cross cut almost unperceived.

Mine of La Trinidad.—San Francisco cross-cut has advanced 7·80 varas, without any other change than small threads of ore, which may be considered indications of the proximity of a branch of the vein. In the first week of the month 2·20 varas were driven in the cross-cut from the shaft; since that time 13·37 varas have been driven along the vein which has been mentioned in last month's report. Thus far it continues as when cut through—poor, but with walls which are well-defined, and in the right bearing.

Mina Grande.—The frente of San Luis, which in last month had declined, was continued 6·73 varas, and not improving in appearance, has been suspended; the frente to the south was continued, 3·17 varas, and suspended in poor ore. A pozo has been opened, in which 4·85 varas have been sunk, and there also the ore has declined, but I entertain the hope that we shall soon find here an improvement. At a point about 60 varas to the south of San Luis we have commenced a level, called Noche Buena, in which 6·25 varas have been driven; this is supposed to be on the San Luis branch of the vein, and presents favourable prospects, producing already a small quantity of ore, some of which is of a superior quality. In the Pozo del Arrastre working is recommenced—6·84 varas have been sunk. In the Pozo de la Bomba, after sinking 10·35 varas, it was hoped that we had obtained depth sufficient to work under the old workings; we, therefore, opened a level to the south, which in two weeks had advanced 12 varas, when it was suddenly inundated by a rush of water from some old workings. It may take us two or three weeks to overcome this obstacle. These delays, although expensive and extremely vexatious, do not lessen my confidence in being able soon to place the produce of the mine on a respectable scale.—S. P. Parkman.

## CRAIG-Y-MWYN LEAD MINING COMPANY.

A general meeting of shareholders was held at the mine, on Friday, the 7th inst., when the purser was ordered to proceed with the construction of all the works preparatory to the erection of the water-wheel and crushers, dressing-floors, storehouse, and office. It was deemed advisable to construct a dam, with a view to obviate inconvenience in dry seasons, the land offering great natural facilities for penning up about two acres of water-space; this, with a large trough to come down the side of the mountain to facilitate the transit of ores and stuff to the crushers, would be done at a light expense, and will ultimately be a great saving to the company; to meet this and the cost-sheets for the ensuing three months cheques were given, against which the balance in hand, and estimating the ore on bank, and the produce for the next three months, will leave a satisfactory surplus. The inspection of the mine was highly satisfactory to the shareholders, several having with much resolution proceeded into sumps, &c., where few but old miners would enter. The mass of lead discovered in No. 3 level has been proved about 20 yards down on the course of the lode, and on completion of the existing contracts for sinking, which will terminate at two yards farther depth, several pitches can be set on tribute. At the breast of the level No. 4, driving to intersect the great parallel vein, strong indications are visible of the approach to the vein, stones of ore being met with in the small flyers crossing at all angles, and every stroke of the pick producing a dangerous gush of water, highly impregnated with mineral oxides. In the southern branch the bluestone has been passed, and the ore enters on the junction of the killas and granite (called here the mineral rock), with good indications of ore presenting themselves; the vein here is about 2 ft. wide.

## THE GREAT COWARCH SILVER-LEAD MINES.

In the olden time it was an accepted opinion that there were no mines north of Truro; but as science gradually advanced, the Tamar became the Rubicon between the metallic and non-metallic country. We will, however, ask where is Wheal Maria, now called Devon Great Consols, and its many satellites, giving occupation to thousands, if it be not altogether out of Cornwall, and on the Devonshire side of the supposed point of demarkation? It is a well-known fact that it was with difficulty that 1000 shares of 1*l.* each were subscribed for to work that mine, yet it is equally a well-known fact that a merchant in this metropolis, who accepted 30 shares for a doubtful debt of 28*l.*, refused 30,000*l.* for his 30 shares. The same feeling applied itself to Wales, when the Goginan had to cater for shareholders, and the 100 shares of 5*l.* each, which constituted the capital, were for some time unallotted; but the dividends which have been paid to an extraordinary extent, from the resources of that mine, prove how fallacious was the prejudice. It is, therefore, with pleasure we see that the spirit of legitimate mining enterprise, which is now developing itself so extensively throughout the country in favour of home undertakings, is directed to that portion of the empire which, although a truly metalliferous locality, has comparatively been neglected. We allude to Wales, and more especially to Merionethshire and Cardiganshire.

A company has been formed under very influential auspices for carrying on the works of the Cowarch Mine, under the denomination of the Great Cowarch Silver-Lead Mine, which is situated in the lordship of Mowddwy, in the county of Merioneth. On many former occasions we have drawn the attention of capitalists to this locality as holding out encouraging prospects of beneficial results, and where, from the natural formation of the country, operations could be carried on extensively with great economy, and more especially by the exhaustless supply of never failing water-power. Since then much has been done to open out this neighbourhood, and the analysis of ore raised from the Cowarch Mine, and certified by Dr. A. Normandy, is sufficient evidence that we were warranted in recommending this mining district. This gentleman states that he examined six samples of ore, and the average yield of metal is 15 cwts. to a ton of ore, or exactly 75 per cent., while the silver produce is 36 ozs. to a ton of lead, and this includes an assay in which there was only 3 ozs.—one portion yielded 82¾ ozs. However, the public, and indeed the world at large, will shortly have an opportunity of seeing the nature of the ore without the trouble of a journey to the mine. A piece has been sent to the Exhibition; its weight is 350 lbs.; its analysis is 16 cwts. 3 qrs. 10 lbs. of metal to a ton of ore, and 82 ozs. of silver to a ton of metal. The capital of the company is divided into 12,000 parts, or shares of 2*l.* each, and we are informed that the applications amount to six times the number of shares to be allotted, which is strong testimony of the avidity with which mining undertakings are sought for where there is a prospect of speedy returns.

Appledore (silver-lead and copper).—This mine is situate in the parish of St. Ive, in the county of Cornwall, closely adjoining Callington and Holmbush setts, and surrounded by, and near to, some of the most productive silver-lead and copper mines—Wheals Mary Ann, Venton, Trehane, Trelawny, and other dividend-paying mines. Five silver-lead and two copper lodes have been already discovered in the sett—the former from 3 to 12 ft. big, one of which has been opened on, and traced at surface for 200 fms., and seen in a 12 fm. level, where it is indicative of high promise, being composed of a rich gossan, mundic, flookan, peach, and prian, with stones of argentiferous galena. The stratum is a light blue killas, generally considered highly congenial for silver-lead, and the lodes possess every geological character which holds out the expectation of rich deposits of ore in depth. The sett extends over an area of above a square mile in extent, is held on lease from W. E. Horndon, Esq., at 1-15th dues, and an additional grant of a piece of land to the south-east, on the run of the silver-lead lodes, has recently been added. The mine is divided into 1024 shares, and is to be conducted on the Cost-book System. A report from Capt. Dunstan, of West Caradon, the managing agent, will be found among the mine reports.

Duke of Cornwall Copper Mine.—This sett has been reported on by Capts. John Vercoe, John Kernick, Richard Hooper, and Mr. Adam Murray, jun., who all concur in the opinion that the lodes and cross-courses—of which there are several of the former and two of the latter—hold out every encouragement to erect machinery for their full development, and that they will produce quantities of copper in depth. A cross-cut has been driven south about 100 fms., and intersected two lodes, the first of which is 5 ft. wide, and intersected by a horse of killas, which gives it the appearance of two lodes; it is composed of crystallised pyrites, disseminated through chloritic matter, with much gossan, felspar, quartz, and veins of black oxide of copper, in a soft and congenial matrix. This is at 7 fms. from surface, and about 7 fms. further a second lode has been cut, with much the same appearances. The sett extends over 500 acres, and its future exploration is looked forward to with much interest, as holding out great promise.

Wheal Cupid—a mine situate between Redruth and St. Day, to the north of the Grambler, last wrought by the late Mr. Williams, of Scorrier, about 36 years ago, is on the eve of resuming operations, under the spirited management of Mr. F. Pryor, and a select body of shareholders, under very favourable auspices. An engine will be immediately procured, and prompt measures taken to ensure an effectual trial. It is rather a remarkable circumstance that at the former working the engine was all completed and ready to go to work, the fire lighted, and yet, from some cause or other, the concern suddenly shut up, without the bob making his bow to the public.

Wheal Tom (Deer Park).—A report on this sett, by Mr. Arthur Dean, C.E., has just been issued, from which it appears the sett is 600 fms. from east to west, and 400 fms. from north to south, on the northern slope of Kitt Hill. The stratum is described as highly favourable; traces of many lodes are visible, but three only have been opened on—the most northern, a copper lode, 3 ft. 6 in. wide, with well-defined walls, composed, in the costeaning pits, of quartz, good quality spar, peach, and rich gossan. In the eastern part of the sett an adit has been driven west 15 fms. in the valley, in which is a deep groove cut down by a narrow stream of water, with a fall of several hundred feet, which will afford many good sites for stamping-mills. About 150 fms. south a tin lode has been opened on remarkably promising, and near the south-east boundary a tin and iron lode has been driven into. Several lodes, underlaying south, have been seen near the southern boundary and three important cross-courses intersect the property. Mr. Dean's report is highly satisfactory, and he gives it as his opinion that this mine will become a great and profitable adventure. Since this report was issued, we are informed that a most valuable discovery has been made—one which will probably place the mine among the first in Cornwall. There has not been time to furnish us with particulars, but we shall, doubtless, be enabled to give them in our next.

Wheal Sarah (St. Kew).—The management of this mine is about to undergo a change, by the secession of several of the London adventurers, who have disposed of their shares, and the resignation of the secretary, Mr. Crofts, in consequence of his other engagements. Mr. Thomas Reid continues the purserhip. The future prospects of the mine are good, a silver-lead lode, of a highly favourable character having been cut lately, under the directions of Mr. A. Murray, jun., at 6 fms. from surface.

## MANUFACTURE OF IRON AND OTHER METALS.

Patent granted to H. Houldsworth, Esq., Coltness House, Lanarkshire: enrolled Feb. 28.]

Until very recently, the enormous waste of fuel constantly going on in the free escape of the heated gases from the tops of blast-furnaces was either unheeded or quietly set down to be unavoidable. When, however, it was demonstrated that out of every thirteen tons of coal put into the furnace not less than twelve were absolutely wasted by dissipation in the shape of escape gases, practical ironmakers began to cast about for a remedy. We need not here refer to the immense variety of schemes thus arising, except to mark the extraordinary economy which followed the successful application of the intercepted gases for heating steam-boilers, and producing the hot-blast for the furnaces. Mr. Houldsworth has now found a new use for them, which promises at least to rival all previous ones in the economy of its results. He makes the furnace calcine its own ironstone and lime. The gases, tapped off by a ring of apertures near the top of the furnace into an annular flue in the thickness of the wall, are conducted, by suitable horizontal ducts or pipes, to a main running alongside the range of calcining kilns. From this main two branch pipes pass to each kiln, the gases being first passed either through or over a small furnace for ignition, with an admixture of atmospheric air. In this state the flame and heated products are passed into an annular flue, encircling the base of the calcining kiln, from which flue a set of openings admit the flame and heat to the body of ironstone to be roasted. Or, instead of this arrangement, the gases may be ignited in the interior of the calcining kiln, without the use of any external fires. In the patentee's drawings, one furnace is represented as supplying four kilns with the heat necessary for calcination. This range of kilns, placed on the bank, at or near the level of the furnace tops, are supplied with raw ore by openings on the top of each kiln, the waggons of ore being conveyed along the line by an overhead railway. The necessary draught through the kilns is obtained by a chimney commanding the whole series, each kiln having a flue connecting its top with a horizontal main flue opening into the chimney. The plan is in successful operation at the Coltness Iron-works, where it is most effective in producing thorough calcination of the ore. The patentee also proposes to calcine the limestone for his furnaces in a similar way. When the process gains a more extended introduction, we shall furnish a statement of the economical results.—*Glasgow Mechanics' Journal.*

## IMPROVEMENTS IN SMELTING COPPER.

BY WILLIAM BIRENTRE, ESQ.

There can *now* be but one opinion on the prospects of the Cornish copper mines. Yet, gloomy though it be, it would have been far otherwise, had improvements in smelting Cornish ores been adopted on a large scale some years ago; as it being but too easy to prove—firstly, that delay in the introduction of improvements in smelting has been most pernicious to the copper mines; and, secondly, that the smelting of Cornish ores especially is susceptible of great improvement.

It appears, that in the first two months of last year, there were sold in Cornwall only 24,082 tons (21 cwts.) ores of 7·99 per cent. copper, but they produced 141,236*l.* 8s.; while in the same two months of this year, there were sold in the same county 25,309 tons (21 cwts.) ores of 7·82 per cent. copper; but they produced only 130,130*l.* 7s. 6d. Here we see that, though there were sold in the last two months 1261 tons more, yet they yielded 11,106*l.* less than in the corresponding two months' sales of the previous year.

The cause of the diminution in the price of the ores is not owing to any falling off in the consumption of the metal; but is entirely owing to increasing foreign competition, since we find, by recent official accounts, that the imports of part wrought and unwrought copper have been in the following years:—

| | | | | | |
|---|---|---|---|---|---|
| Imported in 1848, | 31,737 cwts. | ..... | Entered for home consumption, | | 6,614 cwts. |
| Ditto | 1849, 51,808 | „ ..... | ditto | ditto | 41,155 „ |
| Ditto | 1850, 97,706 | „ ..... | ditto | ditto | 84,626 „ |

While the imports of ores and regulus have diminished from 50,034 tons in 1848, to 45,930 tons in 1850, thereby confirming the fact that colonists and foreigners are smelting their ores to a greater extent than heretofore.

Though it be well known that the Cornish ores abound in sulphur, yet they are treated as if it were not only of no value, but positively injurious to the ores. In other words, imported ores, containing carbonic acid and water, in place of the sulphur, bear a high premium—*vide* my letter in the Journal of Oct. 28th, 1848, where it is stated that, while Cornish ores were worth only 54*l.* 11s. per ton of metal in the ore, Australian ores fetched no less than 67*l.* 9s. 5d. This ought not be so in this country, where sulphur is now selling at 10*l.* per ton, though certainly nothing could be better adapted for smelting in South Australia than the oxides and carbonates of copper; for there they cannot turn sulphur to account in the way it is possible to do so here.

It is rather remarkable, that along with the copper ores there is to be obtained in this country, as it were, abundance of fuel to roast them, in the shape of iron pyrites, being parallel with the fact, that where ironstone abounds in this country, alongside of it is to be found the fuel for the conversion of the ore into metal. Now, the vapours of the iron pyrites (mundic) are valuable, while the carbonic acid and water of the imported ores are valueless. I have found a ton of Cornish iron pyrites to yield the large amount of 3000 lbs. of sulphuric acid, specific gravity 1·847; and have obtained from one vitriol chamber in a week 24,052 lbs. sulphuric acid, specific gravity 1·847; from 9 tons 18 cwts. iron pyrites, and 8 cwts. 0 qr. 10 lbs. saltpetre, the latter being mixed with china-clay and vitriol, the resulting product (alum) was of more value than the saltpetre employed. As the price in Cornwall of the mundic was only 1*l.* 1s. per ton, sulphuric acid can be produced there at an incredibly low price, certainly at one-third the cost of that from foreign sulphur at its present price. It is true that the management of iron pyrites kilns are considered troublesome in comparison with sulphur burners, but they are not so now; at least, I have found the yield of vitriol in a chamber, by the application of a couple of instruments, to be determined at any given time with great accuracy, which, of course, gives great control over the working of the kilns. With that follows—there is no difficulty to roast the copper ores separately by the red heat and flame of the iron pyrites, after which they can be lixiviated, and the copper be precipitated pure; and it is probable that in the act of decomposing copper from its solution on the large scale, we may yet attain the means of producing the electric light at an incomparably cheaper rate than by that now in use. At all events, I should be willing to admit that Messrs. Staite and Petrie have overcome the greatest difficulty in the management of the light; but whether the *last* difficulty, with respect to the light, can be immediately overcome or not, there can be no doubt that Cornwall would reap great advantages, were a portion of her inferior china-clay converted into alum, mundic into vitriol, and her copper ores reduced on the spot into copper.

State of the Gwennap Mines.—We have received a third glance at the present unpromising state of the Gwennap Mines, by our intelligent correspondent, "Argus," but the insertion of which a press of matter and its late arrival compels us to postpone until our next Number. In this communication, after giving his reasons for not agreeing with Mr. Symons in his plan for consolidating all the mines in the district in one company, he gives us the report of Capt. John Davey, sent by Mr. Andrew, one of the lords, to inspect all he could of the United Mines, and in his report he give hopes that on the approach of the dry season the water may be forked, and that there is every chance of coming on a bunch of ore, as they have nearly driven to the lode in the 208 fm. level. The lords consider there is not sufficient grounds for abandonment, and the adventurers have decided, as we before stated, to use every exertion until May to bring, if possible, the mines again into a profitable state of working.

Motive-Power.—Sir J. Scott Lillie has just patented some improvements in the application of motive-power, by which it is proposed to propel boats or vessels by means of rapid currents of air or other elastic fluid, driven by a blower or other mechanical means through inverted troughs, and acting against the water in their passage from end to end. There may be one or two inverted troughs to each boat, and in the latter case they are to communicate with the vertical pipe in connection with the blower, and to be also furnished with valves, so as to direct the current of air either way at pleasure. Paddle-wheels may be suspended in such a position as to admit of the issuing currents of air striking their floats and imparting a rotary motion, by which the vessel will be propelled. The paddle-wheels are also proposed to be set in motion by currents of air directed against them through tubes or pipes. Locomotives and carriages on common roads may be propelled by connecting their driving wheels with a paddle-wheel, caused to revolve by currents of air striking against the floats.

## New Patents.

LITS OF PATENTS GRANTED DURING THE PAST WEEK.

Peter Armand Lecomte de Fontainemoreau, of South-street, Finsbury, patent agent, Improvements in compressing air and gases for the purpose of obtaining motive-power.

V. H. L. Guillouet, of Condé Sin Noirot Calvados, France, chemist, for certain processes for increasing on manufactured fabrics the several shades of indigo.

E. Galloway, of Southampton-buildings, Chancery-lane, Middlesex, civil engineer, for improvements in steam engines.

H. A. Jowett, of Sawley, near Derby, engineer, for improvements in railway breaks and carriages.

G. R. Booth, of Portland-place, Wandsworth-road, Surrey, for improvements in generating and applying heat.

J. Murray, of Canterbury, Kent, barrack-master and captain, for improvements in saddlery and harness.

J. B. A. Brunet, gentleman, of Paris, France, for improvements in the manufacture of coverings for roofs, walls, partitions, furniture, and other similar articles, and in boxes, tubes, and other hollow articles, and in the preparation or manufacture of materials to be employed for such purposes, and also in machinery to be employed in such or similar manufactures.

T. Horn, of Stanhope-street, May Fair, upholder and decorator, for machinery or apparatus for cleansing carpets, matting, and similar fabrics.

G. Roberts, of Selkirk, manufacturer, for an improved manufacture of certain yarns of linen, wool, silk, cotton, or other fibrous substances.

J. Ross, gentleman, of Victoria-terrace, Keighley, York, for certain improvements in machinery and other apparatus for combing wool, and other suitable fibrous substances, and in applying or working the same.

T. Dawson, of Milton-street, Euston-square, machinist, for an improved method of constructing umbrellas and parasols.

W. and J. Galloway, of Manchester, engineers, for improvements in steam-engines and boilers.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

W. Croskill, Iron-Works, Beverley, wheel nave.
Hilliard and Chapman, Glasgow, table knife with invisible secured handle.
W. Merritt, Bromptom, painter's brush.
I. Lusty, Liverpool, pin and needle-case.
Wilson and Mathieson, Glasgow, the tourist's pocket umbrella.
T. Bailey, Birmingham, thumb latch.
J. De la Rue and Co., Bunhill-row, envelope letters.
A. D. T. Canavan, Wyndham-street, Bryanstone-square, buff bristles for cleaning and polishing brushes.—*Mechanics' Magazine.*

## ACCIDENTS.

*North Roskear.*—Thomas Tyrrel received such serious injuries from the premature explosion of a hole, that but little hopes are entertained of his recovery.

*Bilston.*—W. Owen was killed in a pit at Matthew Frosts' Riddings Colliery.

*Merthyr.*—David Davies died from injuries received by a heavy fall of earth.

*Dowlais.*—Thomas Davies was killed by a fall of earth in one of the Penytrain pits.

*Llanberris.*—Several severe accidents have lately occurred in the quarries, principally during the operation of blasting. Last week, a young man lost his life, at Mr. T. A. Smith's large quarry: a general blast had taken place, during which, as is the practice, all the workmen had retired to the huts for safety; and, on returning to his work, a blast in an adjacent piece of rock, which it is supposed had "hung fire," exploded, when a large piece of the scattered material struck the deceased on the head, and killed him.

*Wigan.*—R. Green, J. Topping, and J. Halliwell, 17, 15, and 13 years old respectively, were killed in the Gidlow-lane Colliery, the property of A. F. Haliburton, Esq., by a fall of roof. A married man, named Thomas Atherton, was severely injured.

*Ince.*—J. Disley, was killed by a fall of coal at the Ince Hall Company's Gravel Hole Pit

THAMES TUNNEL COMPANY.

The number of passengers who passed through the Tunnel in the week ending March 8, was—18,013.—Amount of money, £75 1s. 1d.

## SPECIFICATION of an 85-inch STEAM-ENGINE, for PEMBROKE AND EAST CRINNIS CONSOLIDATED MINES.

TO BE TENDERED FOR. 44

Addressed to the Committee of Management, at the offices of the Company, No. 1 Three King-court, Lombard-street, London, on the 26th inst. The Tenders to be opened at Twelve o'clock, when it is requested that either the parties or their agents will attend.

The cylinder to be 85 inches diameter, to have a steam case, the piston to go 10 feet 6 inches stroke in the cylinder, the cylinder and case to be each 1¼ inch thick, cylinder bottom and cover, bright false cover and four grease cups, brass bushings in the cylinder cover and gland, and flat thread bolts for tightening the gland of large stuffing-box. The piston to have metallic ground rings, to have tight joints, the piston rod to be made with the best hammered iron, and to be 8 inches diameter; the cylinder to have 6 holding-down bolts, with 3-inch flat thread screws, top and bottom nozzles to have all double beat valves made in proportion to the engine, nozzles to have bright bonnets, with brass bushings, and all gear to be fitted up in the usual way, with steel pins and case, hardened bearings, all the hand and working gear to be fitted up bright, with all the cheeks and edges to be steel bushed, and have steel pins, cast-iron arbor post, blocks and brasses for carrying the three arbors, and all the necessary gear.

The engine to have two cataracts, with best gun-metal poles, all catches, loops, and stays complete, plug rods and eyes to be made with hammered iron, and fitted up bright; air pump to be 40 inches diameter, and 5-feet stroke, with air bucket and rod, bucket to have the best gun metal valves, bottom of air pump and condenser, brass foot valve and seating condenser to have a copper jet pipe, with a brass injection cock and valve, feed pump with nozzles and valves complete, air and feed pump rods, loops, slings, stays, brasses, &c. Main beam to be 13 tons in each side, and to be 17 feet long; each end, from centre to centre, 7 feet deep in the middle, and all holes to be bored true to fit the gudgeons and pins; main gudgeon to be made of the best hammered iron, the bearings to be 16 inches diameter and 18 inches long, and the centre part of the gudgeon to be 21 inches diameter, the inner and outer main pins to work in brasses fixed in the ends of the beam, all the other pins to be turned and fitted in their places, with keys complete. Main gudgeon blocks to have best gun-metal bearings 3 inches thick in the bottom, hollow stools to fit wall plate, wall plate to be 14 feet long, 6 feet 6 inches wide, 4 inches thick, to have joggles for stools, and cast close, cast-iron piston cap, main links and parallel motion to be made with the best double fagotted iron, and fitted up in the usual way, with brasses bored and faced, catch piece and eyes, stays, &c.; the eyes to be bored, the bosses on the beam to be turned to fit, two pair of outer main caps, side plates, bolts and burs for connecting the main rods.

The whole of the engine to be completed to the end of the nozzles, according to drawings to be supplied, and made in a sound, substantial, and workmanlike manner, with the best materials of their respective kinds—viz.: wrought-iron, cast-iron, and brass of every description, and to the entire satisfaction of Mr. W. West, engineer, St. Blazey.

All the heavy parts to be delivered on the mine, within three months from date of order, and the remainder in four months, to complete engine. If any further information may be required, it will immediately be attended to, by writing to Mr. W. West, St. Blazey.

## PROPOSAL TO WORK THE SCORE SILVER-LEAD MINE, ABERGELE, FLINTSHIRE. 45

Held under Leases of 1-12th Royalty, with a Capital of £2000, in 100 shares, of £20 each.

This Mine, which extends from north to south 1000 yards, and from east to west 900 yards, and situated in the immediate vicinity of the productive Bodlewyddan Mine, and within 5 miles of the great Talargoch Mine, has been partially worked by a steam-engine of 26-inch cylinder to the depth of 52 yards from surface, and now offered for sale for the sum of £800; but to work and open the veins effectually east and west, may require a further sum of £1200.

The capital is proposed to be called up in the following manner—viz.: A deposit of £10 per share to be made in the first instance for payment of the purchase-money, leaving a balance of £200 as working capital for the first six months; and, if required, four calls of 50s. each, to be made at intervals not within six months of each other.

The machinery consists of a steam-engine, 26-inch cylinder, 6-feet stroke, with 67 yds. of 6-inch pitwork, and 70 yards of 7-inch spare pitwork on the surface, 2 horse-whims, 300 yards of chains, kibbles, capstan rope, dressing tools, office, &c.

Applications for shares to be made at the office of Messrs. Francis and Lightoller, 34, Exchange Arcade, Manchester, where a meeting will be held after three-fourths of the shares have been applied for, when the mode of management and monetary affairs will be agreed upon.

## LATEST CURRENT PRICES OF METALS.

*LONDON, MARCH* 14, 1851.

| | | | |
|---|---|---|---|
| **ENGLISH IRON.** *a* | | *per ton.* | |
| Bar, bolt, & square, London | £5 | 5 0–5 10 | |
| Nail rods | 6 | 0–6 15 | |
| Hoops | 7 | 0–7 15 | |
| Sheets (singles) | 7 | 12 6–8 5 | |
| Bars, at Cardiff & Newport | 4 | 12 6–4 17 6 | |
| Refined metal, Wales* | 3 | 10–3 15 | |
| Do. anthracite* | 3 | 10 0 | |
| Pigs in Wales | 3 | 0 0–3 15 | |
| Do. do. forge | 2 | 5 0–2 10 | |
| Do., No. 1, Clyde ... *net cash* | 2 | 2 6–2 3 | |
| Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport* | 3 | 10 0 | |
| Do., do., for tin-plates, boiler plates, &c., ditto | 4 | 10 0 | |
| Stirling's Patent } in Glasgow | 2 | 15 0 | |
| Toughened Pigs } in Wales | 3 | 10–3 15 | |
| Staffordshire bars, at the works | 5 | 5 6–6 0 | |
| Rails | 5 | 10 0 | |
| Chairs (Clyde) | 4 | 0 0 | |
| **FOREIGN IRON.** *b* | | | |
| Swedish | 11 | 15–12 0 | |
| CCND | 17 | 10 0 | |
| PSI | | — | |
| Gourieff | | — | |
| Archangel | | — | |
| **FOREIGN STEEL.** *c* | | | |
| Swedish keg | 15 | 10 0 | |
| Ditto faggot | 15 | 5–15 15 | |
| **ENGLISH COPPER.** *d* | | | |
| Sheets, sheathing, & bolts, *p. lb.* | 0 | 0 9¾ | |
| Tough cake ..... *per ton* | 84 | 0 0 | |
| Tile | £83 | 0 0 | |
| Old copper *e* ..... *per lb.* | 8¾*d* | | |
| Yellow Metal Sheathing | 7¾*d*–8*d* | | |
| Wetterstedt's Pat. Metal † .. *Cwt.* | 1 | 12 0 | |
| **FOREIGN COPPER.** *f* | | | |
| South American, in bond | 77 | 0–87 0 | |
| **ENGLISH LEAD.** *g* | | | |
| Pig ..... *per ton* | 17 | 10–17 15 | |
| Sheet | 18 | 10–18 15 | |
| Pipe | 19 | 0 0 | |
| Red lead | 19 | 0 0 | |
| White ditto | 24 | 0 0 | |
| Patent shot | 20 | 10 0 | |
| **FOREIGN LEAD.** *h* | | | |
| Spanish, in bond | 16 | 10–17 10 | |
| **ENGLISH TIN.** *i* | | | |
| Block ..... *per cwt.* | 4 | 8 0 | |
| Bar | 4 | 9 0 | |
| Refined | 4 | 14 0 | |
| **FOREIGN TIN** *k* | | | |
| Banca, H. C. | 4 | 8 0 | |
| Straits | 4 | 7 0 | |
| **TIN-PLATES.** *l* | | | |
| IC Coke ..... *per box* | 1 | 7 6–1 8 | |
| IC Charcoal | 1 | 12 6–1 13 0 | |
| IX ditto | 1 | 19 0 | |
| **SPELTER.** *m* | | | |
| Plates, warehoused ... *per ton* | 16 | 0 0 | |
| Ditto, to arrive | 16 | 0 0 | |
| **ZINC.** *n* | | | |
| English sheet ..... *per ton* | 21 | 0–21 10 | |
| Quicksilver *o* ..... *per lb.* | 3*s.* 9*d.* | | |

*Terms.*—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis.; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.

* Cold-blast, free on board in Wales. † Dis. for cash in 14 days, 10 per cent.

Bar-iron continues in fair demand, but few parcels remain in second hands; the last mail from the United States brought large orders for rails, mostly at rates which makers are not disposed to accept.

Staffordshire Iron is in good demand, and the manufacturers are full of orders.

Scotch Pig-iron.—Several buyers are in the market at a shade under the present quotation. A moderate business is doing for shipment.

Swedish Iron.—Not any transactions have transpired.

Swedish Steel is in limited request.

Copper remains quiet, at prices given.

Yellow Metal Sheathing is in fair demand.

British Tin.—Common is very dull of sale; several parcels of bar bought by speculators here, some time since at 85*l.* and 85*l.* 10s., after being pressed on this market without meeting a buyer, have found their way to Liverpool, only to be attended with the like want of success. Refined is in good demand and scarce.

Foreign Tin is well held. Banca may be quoted at 87*l.* 10s. buyers; sellers 88*l.*

Spelter.—A parcel of 140 tons have changed hands at 16*l.*, at which rate there are two or three parcels offering. Buyers are not disposed to give more than 15*l.* 15s.

Lead is less inquired for; the quotations from New York are not so encouraging. Several parcels of Spanish have arrived during the week, which have gone into home consumption.

Tin-Plates are in brisk demand; the last advices from America bring short stocks and improved rates.

GLASGOW, March 13.—The shipments of pig-iron continue very good, as well as the local consumption; but as stocks are large, and the production too great, the trade will only purchase just sufficient to meet their immediate requirements, and this is likely to be the case unless a limit is put to the over production. Prices have declined about 6d. per ton during the week, and appear to have a downward tendency.

There is a considerable increase in the general shipments during February, 1851, as compared with February, 1850—say, 14,000 tons. The shipments to the United States have also increased; and taking into consideration how much lower the present price of pig-iron is here, compared with same time last year, and that the stock of Scotch pig at New York is estimated at scarcely more than half what it was, and that strong American iron is worth 82 more than it was last year, it is reasonable to look forward to a good demand from thence.

Average cash price, against shipment, of mixed Nos., good brands, free on board here—February, 1851, 42s. 7d. per ton; February, 1850, 47s. 5d. per ton.

Prices current to-day.—Bars, free on board here, 5*l.* 2s. 6d. and 5*l.* 7s. 6d.; nail rods, 6*l.* 5s.; sheets and plates, 7*l.* 15s.; hoops, 7*l.* 5s.: 4 per cent. discount for cash. Mixed Nos., good brands, free on board here, 41s. 6d. per ton, nett cash, against shipment; Gartsherrie, 43s.; Coltness, 43s.; Summerlee, 42s.; Forth, free on board Frith of Forth, 44s.; Kinniel, 43s. 6d.; Mixed Nos., Ayrshire brands, 40s. 6d.

The shipments appear likely to be still larger this month; last week alone upwards of 12,000 tons were shipped.

LIVERPOOL.—The iron market is dull, and prices of some descriptions are a shade lower. Rails are, however, in good demand, and the larger makers are kept well employed with them. Scotch pig-iron is depressed, and holders are obliged to submit to a small reduction, to tempt purchasers. Tin plates are held firmly, at full rates. In lead in, and copper a moderate business is doing, without any change in price.

## MINING APPOINTMENTS FOR THE WEEK.

17. Treviskey mine account.
18. Wheal Buller and East Wheal Crofty accounts, on the mines.
19. Consols account, on the mine; North Pool and other mines' sampling.
20. Ticketing at Truro—Devon Consols, &c.
21. United Mines account on the mine; pay at Wheal Buller and Levant.
22. Pay at Great Consols, Comfort, Treviskey, Seton, Agar, Pendarves, West Alfred, Tywarnhayle, and Wheal Tremayne; setting at Levant.
25. Tresavean mine account.
26. Carn Brea and other mines' sampling.
27. Ticketing at Truro—Consols, United, &c.

There have been later advices from the Brazils, but we were unable to obtain the particulars. The *Teviot* arrived at Southampton, having on freight, besides miscellaneous cargo, specie and bullion, value 23,762*l.* sterling; and diamonds, 6734*l.*

## Current Prices of Stocks, Shares, & Metals.

MINES.—Notwithstanding the check given in the early part of the week to most of the public securities by the unsettled state of the Government, and the news from Africa, an active business has been doing in a number of favourite dividend mines at advanced prices, in several of which buyers have been more plentiful than sellers. A large amount of speculative capital has also been again disbursed in new adventures, some of solid and others of doubtful character; but, on the whole, thus far there is nothing to justify serious complaint, although we could still wish that the sums subscribed to carry out a given undertaking were more in accordance with the real wants of the mine than with the cupidity of its projectors.

In the Metal Market, Copper is steady, without alteration.—Lead not so brisk.—English Tin not in much demand; Foreign continues firm, although there is but little doing.—Wetterstedt's Patent Metal, and the Yellow Metal Sheathing, are in fair demand.

North Wheal Friendship sold 16 tons of lead ores, at 11*l.* 13s. 6d. per ton.

The first sale of lead ores from the Merllyn Mines, 40 tons, realised 12*l.* 12s. 6d. per ton.

Carthew Consols sold 13 tons of lead ore, at 10*l.* 5s. 6d. per ton.

The Glengola Mine (Galway) sold 60 tons of lead ore, at 11*l.* 18s. 6d.

Bryntail Mine sold 16 tons of lead ore, at 10*l.* 10s. per ton.

Tamar Mining Company sold on the 11th inst. 70 tons of silver-lead ore, at 20*l.* 2s. 6d. per ton.

The ticketings for 90 tons of Foxdale (Isle of Man) lead ore varied from 10*l.* 11s. 6d., by T Somers, to 11*l.* 17s. 6d. per ton, by J. Walker and Co.

There was sampled at Trelawny, on Saturday last, two parcels of ores, No. 1 computed 100 tons, No. 2 (common) 40 tons.

The Hawkmoor February ores were sampled at Calstock on Wednesday, producing 26 tons 7¾ cwts.

The Lewis Mines appear to be in a very satisfactory position. The last sale of tin ores (30 tons 14 cwts.) realised 1638*l.* 8s. 11d., leaving a profit on the month's working of 515*l.* 8s. 5d.; the same quantity (30 tons) the agent states may be expected monthly; from present prospects, and from the appearance of the extension of the levels, in his opinion, it will be permanent. He also states that they are not working the mine unfair, by taking away the tin ground faster than they are opening it in the different levels. They have also (as will be seen on reference to the report) discovered a new copper lode, which is turning out rich work for copper ore.

At Wheal Emma (one of the mines belonging to the Devon Great Consols), the lode has been cut 9 ft. wide, composed of the finest gossan, prian, and ore; the north wall of the lode has not yet been seen.

We have seen some unusually fine specimens of copper ore from Bottle Hill Mine in the 24 fm. level, both from the old and a newly-discovered lode—the former being a yellow sulphuret, spotted with crystals of green carbonate, and the latter largely interspersed with the black oxide.

We have inspected some fine rocks of copper ore from Bodmin Wheal Mary, which, as will be seen by our leading article, have been forwarded to the Great Exhibition.

There has been a serious dispute between Camborne Consols and Camborne Vean and Stray Park, the latter contending the ore offered at ticketting was rose within their limits. The sale was opposed, but ultimately effected, by both parties signing an undertaking that the proceeds should remain in the hands of the purchasers to abide the issue. Stray Park is thought to be in the right.

At the East Wheal Rose meeting, at Truro on Monday, the accounts for Nov. and Dec. showed—Balance last account, 2505*l.* 9s. 3d.; ores sold (less dues), 8800*l.*; Cargoll adventurers, for water charge, &c., 176*l.* 8s. 6d. = 11,481*l.* 17s. 9d.—To costs, coals, and merchants' bills, 6603*l.* 14s. 11d.; income-tax and way-rate, 226*l.* 5s.; carriage of ore and coal, 225*l.* 17s. 5d. —By dividend of 15*l.* per share (1920*l.*): leaving balance in favour of adventurers, 2506*l.* 0s. 5d.

At the South Wheal Frances meeting, on the 3d instant, the accounts showed—Balance end Nov., 689*l.* 11s.: ore sold, Dec. 5, 1949*l.* 18s. 3d.; ditto, Jan. 2, 1720*l.* 10s. 8d.; tin sold, Feb. 28, 710*l.* 6s. 9d.=5070*l.* 6s. 8d. —Mine cost for Dec., 734*l.* 7s. 1d.; Jan., 723*l.* 13s. 6d.; merchants' bills, 668*l.* 12s. 2d.; dues, 292*l.* 1s.; rates and taxes, &c., 156*l.* 9s. 7d.: leaving balance of profit, 1805*l.* 12s. 4d.—By dividend of 8*l.* per share (1984*l.*), leaves balance in hand, 511*l.* 3s. 4d.

At North Roskear meeting, held at the mine on Monday, the accounts for Dec. and Jan. showed—Balance from last account, 1851*l.* 8s. 4d.; ores sold, 4550*l.* 8s.=6401*l.* 16s. 4d.—Mine cost, 4080*l.* 8s. 9d.—By dividend of 5*l.* per share (700*l.*), leaves balance in purser's hands, 1621*l.* 7s. 7d.

Wheal Lovell has declared a dividend of 2*l.* per share (860*l.*) The next dividend is expected to be 3*l.* per share.

At Wheal Spearne Consols bi-monthly meeting, on the 7th inst., the accounts showed—By sale of tin ore, 29 tons 16 cwts. 3 qrs. 26 lbs., 1593*l.* (highest price 56*l.* per ton); add balance in hand last account, 213*l.* 2s. 11d. = 1806*l.* 2s. 11d.—By labour cost and carriage (two months) to Dec. 31, 701*l.* 0s. 10d.; coals, 68*l.* 16s. 8d.; merchants' bills, 156*l.* 16s. 1d.; stamps, rents, rates, &c., 12*l.* 14s.=939*l.* 7s. 7d.: leaving balance in favour of adventurers, 866*l.* 15s. 4d. A dividend of 10s. per share (512*l.*) was made, leaving balance to next account, 354*l.* 15s. 4d. On an original outlay of 1280*l.*, the adventurers will now have received, including this, their nineteenth dividend, 5184*l.*

At the Wheal Tremayne meeting the accounts showed—By sale of copper ore from December to February (less 1-20th dues, 162*l.* 18s. 5d.), 3123*l.* 18s. 6d.; mine cost and merchants' bills, 2601*l.* 3s. 4d.—leaving profit, 522*l.* 15s. 2d.: add balance in hand on last account, 409*l.* 7s. 5d.= 932*l.* 2s. 7d.—deduct dividend 10s. per share, 512*l.*: leaves now in hand, 420*l.* 2s. 7d.

At Alfred Consols meeting, on Tuesday, a dividend of 5s. per share (1280*l.*) was declared.

At a meeting of the Carn Brea adventurers, held at the mine on Friday, the produce was reported to have somewhat declined; but the prospects in the new ground in the eastern part of the sett are very encouraging. A dividend will be declared in a few days.

At the South Wheal Trelawny meeting on Tuesday, the accounts were examined and passed, showing—Balance last account, 121*l.* 10s. 5d.; labour cost, Oct., 114*l.* 1s. 3d.; ditto, Nov., 66*l.* 9s. 1d.; ditto, Dec., 45*l.* 15s. 2d.; ditto, Jan., 1851, 65*l.* 17s.; cash due for 56 shares resigned, 143*l.* 15s. 6d.=557*l.* 8s. 5d.—By call (50s. per share), 500*l.*: leaving balance against the mine, 57*l.* 8s. 5d. Capt. Wm. Jenkins was appointed manager and purser, at 3*l.* 13s. 6d. per month; and it was resolved to drive the 60 fm. level south, instead of sinking the engine-shaft. The purser was directed to proceed against all defaulters, and to take the proper steps in regard to two shares resigned by Mrs. Ann Lean.

At a meeting of adventurers in the Carvannall Mine, on the 4th inst., the accounts for Dec. and Jan. showed—Balance, 206*l.* 18s. 8d.; mine cost for Dec., 282*l.* 12s. 5d.; Jan., 167*l.* 8s. 3d.=656*l.* 19s. 4d.—Dec. 31, by division of costs, 4s. per share, 211*l.* 4s.; call (6s. per share), 316*l.* 16s.: leaving balance against the mine, 128*l.* 19s. 4d., or 2s. 6d. per share, which was divided and paid to the purser. A call of 6s. per share was also made, payable immediately, for the prosecution of the mine.

At the Wheal Fortescue meeting, at Tavistock on the 6th inst., the accounts showed—Balance from last account, 159*l.* 9s. 1d.; mine cost for Nov., 102*l.* 0s. 3d.; Dec., 93*l.* 16s. 7d.; Jan., 82*l.* 9s.; Feb., 87*l.* 10s. 9d.; merchants' bills, 110*l.* 16. 9d.=636*l.* 2s. 5d.—By 17th call (10s. per share), 458*l.*: leaving balance against adventurers, 178*l.* 2s. 5d. A call of 10s, per share was made.

At the Rocks and Treverbyn meeting of adventurers, held at Manchester on the 5th inst., the accounts showed—Balance last account, 267*l.* 8s. 7d.; office expenses, two months, 11*l.* 7s. 6d.; mine cost for Dec., 554*l.* 2s. 5d.; merchants' bills, 296*l.* 5s. 6d.; mine cost for Jan., 522*l.* 10s. 8d.; merchants' bills, 209*l.* 4s. 11d.=1860*l.* 19s. 7d.—By materials sold, 95*l.* 13s. 6d.; calls, 140*l.*; Jan. sale of tin, less dues, 695*l.* 0s. 2d.; ditto Feb., 611*l.* 16s. 4d.: leaving balance against adventurers, 318*l.* 9s. 7d. To cover which there are assets—arrears of calls, 160*l.*; owing for spare materials, 219*l.*=379*l.*

At Trelyon Consols meeting, on the 3d March, the accounts for Oct., Nov., and Dec. showed—Balance of last account, 135*l.* 10s. 11d.; three months' labour cost, 493*l.* 8s. 6d.; merchants' bills, 146*l.* 19s. 7d.; lord's and bounder's dues, 74*l.* 17s. 3d.; costs relative to boundowner's dues, 41*l.* 14s. 3d. = 892*l.* 10s. 6d.—By tin ores sold, deducting 50*l.* credited last account, 313*l.* 10s. 9d.; copper ore sold, including 46s. 9d. carriage, 113*l.* 18s. 7d.; call made last account of 10s. per share, 300*l.*: leaving balance to debit of next account, 165*l.* 1s. 2d.

At the Crane and Bejawsa meeting, at Camborne on Tuesday, the accounts for Nov. and Dec. showed—Balance from last account, 846*l.*; costs and merchants' bills, 1904*l.* 11s. 9d. = 2750*l.* 11s. 9d.—By call in Jan., 1536*l.*; overcharged sundries, 27*l.* 2s. 5d.: leaving balance against adventurers, 1187*l.* 9s. 5d. A call of 6*l.* per share was made.

At North Wheal Robert meeting, on Tuesday (the Rev. J. Wright, F.R.S., in the chair), the accounts were examined and passed, showing—Amount received on calls, 2048*l.*; discount, 3*l.* 9s. 5d.=2051*l.* 9s. 5d.—By purchase of sett, 1000*l.*; office expenses for four months, 32*l.* 0s. 6d.; printing, engraving, books, stationery, &c., 39*l.* 16s. 7d.; labour cost and merchants' bills, four months, 304*l.* 14s. 8d.: leaving balance at bankers, 674*l.* 17s. 8d. Mr. J. H. Murchison (the secretary) read a report from Mr. Arthur Dean, C.E., on the present position and future prospects of the mine, which was highly satisfactory—that gentleman giving it as his opinion that, from the geological formation in which the lodes were situated, and their present indications, a profitable mine would be the result. A report was also read from the committee of management, and one from Capt. John Gilbert, the latter corroborating Mr. Dean's remarks. On the motion of Mr. Halket, who stated that in the views of the committee the purser had not used that discretion in the purchase of supplies which he ought to have done for the interests of the adventurers, it was resolved, that it be left to the committee to make such arrangements with regard to the pursership at Tavistock as to them shall appear most advantageous for the interests of the company.

At the Llwynmalees meeting, yesterday, a call of 10s. per share was made. The agent reports the mine to be looking well: 30 tons of lead ore were sampled on the 12th instant.

At the meeting of adventurers in Peter Tavy and Mary Tavy Consols, on Saturday last, the accounts were examined and passed, showing the working cost for Jan. and Feb. to have been 139*l.* 8s. 4d., leaving a balance in favour of the company of 390*l.* 8s. 1d. A report from the committee of management was read, which stated that the 5 fms. of the diagonal shaft, on the underlay of the lode, had been completed, and 4 fms. more let to the sumpmen, at 25*l.* per fm.—the extra price being paid from the increased hardness of the rock: 2 fms. of this was completed, and a considerable improvement had taken place. The lode was wider, with well-defined walls, producing mundic, peach, spar, and occasional spots of copper ore. Two lodes have been discovered by costeaning in Cole's land, which are expected to make ore at shallow depths, and the adventure is said to be assuming an aspect of great promise. As 200*l.* out of the above balance is due for the sett, leaving only 191*l.* 8s. 1d., the committee recommended an immediate call of 20s. per share, payable on or before the 17th inst. The machinery has been erected in a substantial manner, and is likely to last for many years. The chairman drew a highly-promising and satisfactory picture of the undertaking, and stated that the owners had consented to lower the dues. A special meeting, for the confirmation of the call, will be held on Monday next.

At the East Wheal Reeth bi-monthly meeting, on Wednesday, the accounts showed a balance in hand of 58*l.* 3s. 2d., and calls to receive of 531*l.* 15s.—making a total to meet the current expenses of 589*l.* 18s. 2d. A report was read from the committee, which stated that a favourable contract had been entered into with Messrs. Gray for the erection of a steam-engine, with all necessary buildings, expected to be complete by 12th May next, and that there was at surface a quantity of tinstuff ready for stamping as soon as the machinery was complete. Reports were read from the mine captain and Capt. John Burgan, which were satisfactory as to the position and prospects of the mine, and the committee of finance was re-elected.

At the Trethevy meeting, held at Exeter, on the 10th inst., the accounts were examined and passed, showing—Balance last account, 33*l.* 8s. 8d.; labour cost and merchants' bills for Dec., 229*l.* 18s. 9d.; paid Messrs. Nicholls on account of pumps, 100*l.*; labour cost and merchants' bills for January, 111*l.* 10s. 11d. = 474*l.* 18s. 4d.—By calls, 368*l.*; West Phœnix Mining Company for pumps, 40*l.*: leaving balance against the mine, 66*l.* 18s. 4d.—Reports were read from Capts. Seymour, Rodda, Taylor, and Spargo, all of which bore testimony to the satisfactory position and promising indications of the mine. The meeting was adjourned to the 25th inst., to take measures for the forfeiture of shares in arrear of calls. It was resolved, that a member of the company be appointed to confer with the members of West Phœnix, Kingsett and Bedford, Great Sheba Consols, Caradon Vale, and Wheal Gill, to appoint a permanent agent, whose duties should be confined to superintend and control the affairs of these mines and Trethevy; that Mr. Bond be appointed as such deputation, and that he make arrangements for suitable offices for conducting the affairs, and settle the contribution of this company towards the same.

At the West Phœnix bi-monthly meeting, at Exeter on Monday, the accounts showed—Balance last account, 484*l.* 9s. 1d.; on account of call, 500*l.*=984*l.* 9s. 1d.—Paid on further account of lessees, 103*l.* 15s.; ditto Trethevy company for pumps, 40*l.*; labour cost and bills for December, 105*l.* 4s. 7d.; ditto January, 119*l.* 7s. 7d.—leaving balance in favour of the mine, 616*l.* 1s. 11d. It was resolved that Dr. Lang be appointed as a deputation to meet those of the companies named in the Trethevy report above, and that he make like arrangements with regard to this company. Reports by Capts. Rodda and Spargo were read, which were favourable.

At the Kirkcudbrightshire monthly meeting on Tuesday, the accounts showed a balance against the company of 18*l.* 4s. 2d. There are, however, 40 tons of lead ore shipped, per *Caledonia*, valued at 420*l.*, the cost of which has been paid. There was a profit on the month of 35*l.* 17s. 6d.

At the Wheal Sophia meeting there was a balance in favour of the mine of 53*l.* 12s. 9d. The workings are suspended for two months; all arrears of calls are to be collected, and a call made, if necessary, of 5s. per share.

At the West Shepherd meeting, held in Manchester, on the 7th inst., the accounts were examined and passed, showing—Balance, last account, 68*l.* 19s. 4d.; calls, 202*l.* 8s. 3d.; interest, 1*l.* 12s. 3d. = 272*l.* 19s. 10d.—By general and office expenses, 26*l.* 5s.; coals, 43*l.* 6s. 6d.; merchants' bills, 23*l.* 10s.; labour cost, Nov., Dec, and Jan., 142*l.* 14s. 1d.: leaving in hand, 37*l.* 4s. 3d.; to which add arrears of calls due (250*l.* 7s. 6d.), and deduct merchants' bills due, 185*l.* 0s. 2d., leaves balance in favour of the mine, 102*l.* 11s. 7d.—A call of 1s. per share was made; and the committee were invested with power to take steps for the recovery of all arrears.

At Wheal Harriet meeting, on Saturday last (James Reed, Esq., in the chair), it was proposed that the resignation of Mr. Thomas Tredinnick be accepted, and that Mr. Edward Burgess, of Camborne, be the future purser of the mine. The meeting was adjourned until Tuesday next, to receive and pass the accounts.

At the Craig-y-Mwyn meeting, the preparatory works were directed to be energetically proceeded with, beyond the cost of which, the balance in hand, and estimating the ore on bank and the produce for the next three months, would leave a satisfactory surplus. A deputation of shareholders had made a minute inspection of the mine, and found all the indications of a good property—everything, in fact, proceeding to their satisfaction.

At a meeting of adventurers in the Duke of Cornwall Copper Mine, on the 3d inst., nearly all the shares were allotted, a few only being reserved for parties who had signified a wish to join the adventure, but were not present. Mr. J. Pearse, of Bodmin, was appointed purser, and Capt. John Vercoe the managing agent. The rules and regulations of the company were agreed to, a finance committee nominated, and directions given for the purchase of a steam-engine. Few undertakings have been commenced under more favourable auspices than this appears to have been, and the opinions of many practical men are, that the prospects are more than usually good, and that it bids fair to be a mine of some standing and importance in the county. The adventurers are few in number, but have taken up the adventure with spirit, and a full determination to develope its resources, as far as they are available.

There have been numerous transactions in Foreign Mines during the week. Santiago has been much inquired for, and done at an advance; Copiapo, United Mexican, and Cobre, have also been dealt in.

Among the arrivals at Liverpool, during the week, has been 653 tons of Irish iron pyrites.—Also, 8 tons of silver and copper ore, 22 tons of copper regulus, 109 tons of cobalt ore, and 1753 bars of copper, from Tortonlills; 380 cwts. ditto from Constantinople; 8 casks ditto from New York; and 2603 plates of zinc from Hamburg.

At Swansea, there have been arrivals from Coquimbo, Valparaiso, and Cuba; from the former one vessel brought 269 bars of copper, and 344 tons of regulus and copper ore.

The Barossa Range meeting, on Saturday, was adjourned until this day.

From Alten we learn that Raipas continues in a gloomy state, and some of the bargains have fallen off considerably in value. In the United Mines there is no particular improvement to notice; but in the Old Mine the prospects have generally improved, and the quality of the returns is somewhat better. The new sink was giving 4 tons per fathom, and the stopes were looking satisfactorily.

At Quænangen, although some time since there was a falling off, the prospects continue good. The principal lode on which the expectations of prosperity are based, is not yet reached.

The advices from the St. John del Rey Mines, are dated Dec. 18. The gold extracted in 10 days' stamping was 6850 oitavas, from 409·26 cubic feet of sand, equal to 16·73 oitavas per foot. Stamps working 17 days, average 93·62 heads. The supply of stone continued abundant, and the returns were fully expected in the month to equal those of the preceding one. Twenty days' stamping to December 28, gave 13,583 oitavas, from 799·8 cubic feet of sand, equal to 16·88 oitavas per foot. In the last 10 days the supply had fallen off, in consequence of the borers being absent holiday making.

From the National Brazilian the advices are to the 26th Dec. last. At Cuiaba there were immense stopes in view, but richer ground was expected at a greater depth. At Cocaes, the 30 feet wheel works only 12 hours a day, and it is suggested to remove it to the new workings, where it would effectively work 24 stamps' heads, breaking 40 tons of stuff per day, or 1200 tons a month, which at only ¾ oit. per ton, would be 14 mcs. per month, while the ore is expected to improve in depth.

Royal Santiago despatches have arrived under date Jan. 27. Thompson's shaft was down 4 fathoms below the 22 fm. level; the lode was 3 ft. wide, yielding 4 tons sulphuret of copper per fm.; west from the shaft the lode was 9 ft. wide, 10 tons per fm., and east 7 to 8 ft. wide, 3 tons per fm The ends in general were looking well. Taylor's shaft, at San Joaquin, continued to yield larger quantities of water, but the ground was favourable. At Angelita, the south wall of the lode had not been reached, but the ore extracted was grey oxide of copper, mundic, and gossan.

By the United Mexican advices, it appears that the Mine of Rayas has continued poor throughout the month, the sales with buscones declining weekly, and if they did not improve would have to be discontinued. The monthly accounts show excess of returns over expenditure of $41,034 1 1. There is nothing very particular to notice in the operations at the other mines. Two frentes north-west of La Purisima had improved materially, and in a direction where there is a large space of unworked ground. The produce of dressed ore remitted to the haciendas amounts in five weeks to 1400 cargas.

At Linares the sinking of Thomas's engine-shaft was proceeding satisfactorily, and was 9½ fms. below the 31 fm. level. Wilson's was down nearly 9 fms. below the 45 fm. level, and the lode producing 5 to 9 tons per fm. In the 55 fm. level the lode is still large and promising; and Shaw's shaft down 11 to 12 fms. below the 45 fm. level; but the lode was hard and unproductive. The lode in the 45 fathom level is rich and productive, yielding 6 tons of lead ore per fm. The prospects of the mine generally continue to improve.

### SILVER-LEAD ORE.

*Ticketings at the White Horse Hotel, Holywell, on the 13th March.*

| Mines. | Tons. | Price per Ton. | Purchasers. |
|---|---|---|---|
| Maesyrerwddu (Talargoch Mine) | 73 | £12 2 0 | Walker, Parker, & Co. |
| Coetia Llys ditto | 20 | 12 15 0 | Mather and Co. |
| Hendre | 18½ | 11 7 0 | Walker, Parker, & Co. |
| Ditto | 8½ | 11 3 0 | ditto |
| Deep Level (Halkin Mines) | 100 | 11 11 0 | Newton, Keates, & Co. |
| Talacre | 37½ | 12 0 6 | J. P. Eyton. |
| Ditto | 7½ | 11 15 0 | Newton. Keates, & Co. |
| Pantyceln | 25 | 12 1 0 | Walker, Parker, & Co. |
| Merllyn | 40 | 12 12 6 | Newton, Keates, & Co. |
| Axton | 12 | 11 14 6 | Walker, Parker, & Co. |
| Bryn-Arian | 30 | 11 16 6 | Newton, Keates, & Co. |
| Caeconroy | 25 | 13 13 0 | Walker, Parker, & Co. |
| Ditto | 5 | 11 12 6 | Newton, Keates, & Co. |
| Cairnsmore | 40 | 11 1 6 | Walker, Parker, & Co. |
| Chillan Lead | 3 | 110 5 0 | Newton, Keates, & Co. |
| *Sold at Chester, on the 11th March.* | | | |
| Bryntail | 16 | £10 10 0 | Walker, Parker, & Co. |
| *Sold at the Mine.* | | | |
| Machynlleth | 54 | £12 0 0 | ditto |
| East Shallee | 25 | 19 13 0 | Mather & Co. |
| ditto | 17 | 15 2 6 | Walker, Parker, & Co. |
| East Wheal Rose | 59 | 13 14 6 | Tamar Company. |
| ditto | 40 | 14 12 6 | ditto |
| ditto | 29 | 13 15 6 | ditto |
| Tamar | 70 | 20 2 6 | T. Somers. |
| Carthew Consols | 13 | 10 5 6 | Tamar Company. |

### LEAD ORES.

*Sold at Galway, on the 1st March.*

| Mine. | Tons. | Price. | Purchasers. |
|---|---|---|---|
| Glengola | 60 | £11 18 6 | Walker, Parker, & Co. |

TICKETINGS FOR ABOUT 90 TONS FOXDALE LEAD ORE.

*Douglas, Isle of Man, March 8.*

| Bidders. | Price per Ton. |
|---|---|
| Walker, Parker, and Co.—Dee Bank (purchasers) | £11 17 6 |
| Mather and Co.—Bagillt | 11 14 6 |
| Newton, Keates, and Co.—Bagillt | 11 10 0 |
| Sims, Willyams, Nevill, and Co.—Llanelly | 11 0 0 |
| Thomas Somers—Bristol | 10 11 6 |
| Tamar Smelting Company—Beeralston | 10 18 0 |
| Locke, Blackett, and Co.—Newcastle | 10 15 6 |

### BLACK TIN

*Sold on the 13th of March.*

| Mine. | Costs. gr. lbs. | Price per Ton. | Purchasers. |
|---|---|---|---|
| Mineral Court | 89 3 12 | £59 0 0 | Trethellan Smelting Co. |
| Ditto | 7 3 16 | 39 0 0 | ditto. |
| Ditto | 7 0 16 | 16 0 0 | ditto. |

| Mines. | Tons. | Price per Ton. | Purchasers. |
|---|---|---|---|
| Drake Walls | 7¾ | £52 17 6 | Union Smelting Co. |
| Ditto | 4¾ | 44 15 0 | ditto |
| Ditto | 7¾ | 52 17 6 | Bissoe Company. |
| Ditto | 4¼ | 44 15 0 | Danbuz; Calenick; and Williams. |

### COPPER ORES.

*Sampled Feb. 26, and Sold at Andrew's Hotel, Redruth, March 13.*

| Mines. | Tons. | Price. | Mines. | Tons. | Price. |
|---|---|---|---|---|---|
| Carn Brea | 88 | £5 1 0 | Wheal Buller | 34 | £3 4 0 |
| ditto | 82 | 5 18 0 | Par Consols | 90 | 6 3 6 |
| ditto | 81 | 6 9 6 | ditto | 88 | 6 10 6 |
| ditto | 77 | 4 5 0 | ditto | 80 | 5 11 0 |
| ditto | 76 | 5 10 6 | Alfred Consols | 107 | 4 19 0 |
| ditto | 71 | 5 2 6 | ditto | 84 | 5 13 0 |
| ditto | 68 | 8 3 0 | ditto | 24 | 13 3 0 |
| ditto | 48 | 3 16 6 | Levant | 80 | 2 2 0 |
| ditto | 44 | 1 18 0 | ditto | 60 | 8 7 6 |
| ditto | 29 | 8 8 6 | Botallack | 68 | 7 11 6 |
| Tywarnhayle | 116 | 6 18 6 | Wheal Agar | 53 | 4 2 6 |
| ditto | 110 | 2 14 6 | Trannack and Bosence | 30 | 8 17 6 |
| ditto | 71 | 3 4 6 | | | |
| ditto | 58 | 2 7 6 | ditto | 4 | 5 3 6 |
| ditto | 25 | 2 15 6 | Cook's Kitchen | 29 | 2 17 6 |
| Wheal Buller | 106 | 10 13 0 | Trelyon Consols | 24 | 5 4 0 |
| ditto | 96 | 4 4 6 | Copper Bottom | 23 | 7 10 6 |
| ditto | 76 | 5 16 0 | Lemin | 6 | 1 2 0 |
| ditto | 51 | 16 1 0 | ditto | 5 | 3 9 0 |

TOTAL PRODUCE.

| | | | | | |
|---|---|---|---|---|---|
| Carn Brea | 664 | £3629 8 6 | Wheal Agar | 53 | £218 12 6 |
| Tywarnhayle | 380 | 1539 3 0 | Trannack and Bosence | 34 | 286 19 0 |
| Wheal Buller | 363 | 2902 13 0 | | | |
| Par Consols | 258 | 1573 19 0 | Cook's Kitchen | 29 | 83 7 6 |
| Alfred Consols | 215 | 1319 17 0 | Trelyon Consols | 24 | 124 16 0 |
| Levant | 140 | 670 10 0 | Copper Bottom | 23 | 173 1 6 |
| Botallack | 68 | 515 2 0 | Lemin | 11 | 23 17 0 |

Average Standard ..... £ 98 8 0 | Average Produce ..... 8¼
Average Price per ton ..... £5 15 0
Quantity of Ore ..... 2262 tons | Quantity of Fine Copper, 195 tons 18 cwts.
Amount of Money ..... £13,061 6 0

LAST SALE.—Average Standard ..... £103 3 0.—Average Produce ..... 7¼
Standard of corresponding sale last month, 100*l.* 17s.—Produce, 7¾.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

| | Tons. | Amount. |
|---|---|---|
| Mines Royal | 340 | £2167 10 0 |
| Vivian and Sons | 329 | 2023 5 6 |
| Freeman and Co. | 279 | 1279 7 0 |
| Greenfell and Sons | 353 | 1719 0 0 |
| Sims, Willyams, and Co. | 266 | 1538 18 0 |
| Williams, Foster, and Co | 412 | 3053 17 0 |
| Schneider and Co. | 173 | 729 16 6 |
| Mason and Elkington | 110 | 549 12 0 |
| Total tons | 2262 | £13,061 6 0 |

Copper ores for sale on Thursday next, at the Royal Hotel, Truro.—Mines and Parcels.—Devon Great Consols: Wheal Josiah 101, 96, 93, 88, 83, 82, 78, 75, 73, 62, 60, 59, 44; Wheal Fanny 85, 76, 65, 58, 40; Wheal Maria 53, 35; Wheal Anna Maria 66, 46: total, 1518—West Caradon 90, 81, 60, 58, 38: total, 327—Fowey Consols 93, 71, 56: total, 220—Wheal Friendship, 95, 93: total, 188—Bedford United 141—Poldice 50, 41, 34: total, 125—Wheal Maiden 17, 6: total 23—Wheal Jewel 22—Davey's ore 1.—Total, 2565 tons.

Copper ores for sale on Thursday week, at the Royal Hotel, Truro.—Mines and Parcels.—Cook's Kitchen 261—South Tolgus 239—South Caradon 225—Trethellan 90—Treleigh Consols 77—Wheal Mary (Redruth) 70—Wheal Ellen 61—Charlestown United 61—Wheal Henry 31—Wheal Mary (Bodmin) 29—Carthew Consols 24—Wheal Towan 16—Wheal Penhale 7.—Total quantity of ore to be sold, 3237 tons.

## NOTICES TO CORRESPONDENTS.

**Lecture on Mineralogy.**—We have in type a lengthy report of Prof. Tennant's Lecture on Metallic Minerals, delivered at King's College on Wednesday, but a pressure on our space compels us to postpone its insertion until Saturday next.

Mr. Parkes' paper on the Assaying of Copper Ores shall also appear in our next Journal.

"A Constant Reader" (Clapham).—Metallic cobalt is a silvery grey metal, highly magnetic, but of little use in the arts. The beautiful blue colour obtained from the ores of cobalt, and so important in the manufacture of glass and porcelain, as also in tinting silk, cotton, paper, and numerous other fabrics, is a protoxide of cobalt, the manufacture of which is a delicate and tedious process, and is carried on principally in Saxony, Bohemia, and Norway. The several ores of cobalt are—tin white, silver white, and grey cobalt ores; black, brown, yellow, red, radiated, and slaggy cobalt ochres, and cobalt pyrites; in general, compounds of cobalt, sulphur, arsenic, nickel, &c. Ultramarine, another splendid blue, must not be confounded with cobalt; it was formerly prepared from *lapis lazuli*, a mineral composed of silica, alumina, carbonate and sulphate of lime, oxide of iron, and water. Chemists have succeeded in producing a splendid colour, almost equal to the native, by the proper manipulation of the above elements; but the finest, for delicate artists' work, still retains a high price, from 7*l.* to 20*l.* per ounce.

"J. K." (Wray).—The Government Inspection of Coal Mines Act appeared in the *Mining Journal* of the 27th July.

"A Would-be Adventurer" (Pool).—The mere neighbourhood of a mine with another which has given profitable results, should certainly not form a ground for adventure: mines even on the course of the same lodes often give very different results. Our correspondent should judge for himself from those parts of the lodes which have been opened on; or, if not sufficiently experienced to depend on his own judgment, take a practical agent, who would give a disinterested opinion on the subject.

"A Constant Reader" (Gray's Inn).—The publication of the letter would subject us to an action for libel.

"A Large Consumer" (Bow).—Cannell coal contains less carbon and more hydrogen than Newcastle coals, probably in the proportion of about 5 to 4. It is, therefore, better adapted for the production of gas, but is not suitable for the conditions under which high and steady temperatures are required—in distilling, dyeing, sugar refining, and other delicate processes, as well as furnaces generally. The coke from Cannell coal is much lighter than that from the coals of the north of England—leaves a large quantity of white ash, and gives a less powerful temperature during combustion.

"M." (Cornhill) should make formal application at the office for all the particulars; and if unable to obtain them, should then apply to a solicitor, who will advise how to proceed.

Mr. Hopkins is now in the Tavistock and Caradon districts; but is expected in London in about a fortnight, when he will attend to the several communications required of him.

"A Shareholder" (Broad-street).—Since the month of November last, a committee of gentlemen have been in negotiation with the Stock Exchange; the result of their labours will probably be known next week, when we trust the abuses complained of, though somewhat exaggerated, will be remedied.

"T. B." (Swansea).—The "Lamb and Flag" was assumed many years since by some old firms in Cornwall, who now consider it their private mark; at this present time, however, all the tin smelters in the county adopt it. As this is common to Cornwall, no question has yet been raised, though on occasions legal proceedings have been hinted at; but, whether the same leniency would be shown to tin smelters in Welsh works, we are not prepared to say. The question is open to much doubt, and a satisfactory solution could only be obtained in a court of law.

"H. C. R." (Birmingham).—A fathom of ground is generally considered to be a fathom on the lode, whatever may be the height or breadth of the level, but in common parlance it is understood to be 6 feet high, and 6 feet in.

"H. O. W." (Snowhill).—Twenty words sent by the electric telegraph from Paris to Rouen will cost 4 francs 68 centimes; from Paris to Havre, 5 francs 76 centimes.

"A Lapidary" (Bond-street).—According to Mawe, a negro finding a diamond of 17½ carats had his freedom given to him and a suit of new clothes; a stone of 8 or 10 carats, two new shirts, a suit of new clothes, a hat, and a knife. The famous Portuguese diamond in the crown jewels of Portugal, is 1680 carats weight; this has a hole drilled through it, and was thus worn by Don John VI. on gala days—it is about the size of an ostrich's egg. Three Brazilians, who were condemned to perpetual punishment, in Minas Geraes—Antonio de Sousa, Thomaso de Sousa, and Jose Felise Gomez, received their pardon for finding it. Its value is stated to be 5,644,800*l.* It is supposed, however, that it is only a *nova mina*, or white topaz.

**Coombe Valley Slate Quarry.**—In our notice of the meeting of this company, inserted on the 1st inst., we stated that letters were read from Messrs. A. Malcholm, the manager, A. S. Leech, and N. Ennor, recommending that the quarry should be worked with 50 men, and then, at the year's end, see what had been earned, and act accordingly. This was not the case; the fact was, Mr. Leech enclosed a printed copy of a letter of Mr. N. Ennor's, on working slate quarries, which appeared in the *Mining Journal* of 4th Feb., and which he thought applicable to the Coombe Valley Quarry. We have received this correction from Mr. Charles Smith, of Coggeshall, who states that they have a bed of the finest slate, 100 feet in thickness, and the prospects of the company are such that they require no opinions of others to enable them to keep up their spirits.

The Law Life Assurance Company returns 18*l.* per cent. upon the sum originally paid, and it has divided in 24½ years profits amounting to 1,556,686*l.* The Guardian Company, at the last septennial division, divided bonuses exceeding 770,000*l.* The bonuses of the Norwich Union are 60,000,000*l.* sterling; and other offices, according to their standing, have realised proportionate amounts.

"J. P. and Sons" (Hull).—There may be the apparently unaccountable fluctuations in the price of the metal in the various markets, but certain it is that, with an improved standard in proportion to the produce, the smelter pays the miner a better price for the ore; while increased biddings on their part indicate an improvement in the copper market. The standard has always appeared to us a very ridiculous and unnecessarily troublesome calculation, no doubt originally intended to mystify the uninitiated, and hide some nice pickings on the part of the smelters from the knowledge of the miner and adventurer, few of whom know anything about the matter, or, indeed, take the trouble to learn. Surely the price of ore giving a certain per centage of fine copper is a sufficient indication of the state of the market, and the general value of the commodity. In attempting to explain the "standard," its admirers will tell us that the fixed *standard* of each ticketing has an accompanying *fixed produce;* and if the produce increases or diminishes 1 per cent. from the standard produce, the amount of the standard is increased or diminished 2*l.*—that is, if the given standard is 110*l.*, and produce 8, then a parcel of only 0½ per cent. is entitled to a standard of 113*l.*, and another parcel, yielding 10½ per cent., will be computed at only 105*l.* The fact is, this mode of calculation is, after all, fiction, fudge: the real transaction is the purchase of copper ore. The smelter knows his business, and will only buy on terms by which he can make a profit, and he claims 2*l.* 15*s.* per ton of ore for what he calls "returning charges," to be deducted from the calculation of product and standard. On low grade ores, requiring 20 tons to produce 1 ton of copper, he will have a deduction of 55*l.* returning charges, while on higher per centage ores, requiring but 5 tons, he will have only 13*l.* 15*s.* He can thus afford a high (what he calls) *standard* for the low ores, while he must have a low one for the rich ores, to equalise them. "Standard" is thus a myth, serving a purpose which habit has rendered familiar, but totally incomprehensible to multitudes in and out of Cornwall and Swansea. It does not govern the price of ore, but is a result of the biddings in each transaction, dependant not so much on the value of copper as on the return charges, which are a mere arbitrary amount, bearing no relation to the real cost of converting the ore into marketable metal. "Standard" may, however, be defined as the value of a ton of fine copper in the ore, conditional that the smelter is allowed 2*l.* 15*s.* for every ton of ore it takes to produce it.

"J. B. P." is informed that we never furnish the names of our correspondents: a letter addressed to "Argus," and forwarded to our office, will reach him.

"F. M. S." (Broad-street).—The Bank of Venice was the first banking establishment in Europe. It was founded in 1171, and existed until the subversion of the republic in 1797. It was a deposit bank only, and issued no notes. The Bank of Amsterdam was established in the year 1609, and that of Hamburg in 1619: they were deposit banks only, and issued no notes. The Bank of England was incorporated in the year 1694, and was the first bank which ever issued notes or bills to circulate as money in ordinary transactions of trade and commerce. The Bank of Scotland was established in 1695, with a capital of but 100,000*l.*, which was raised to 200,000*l.* in the year 1744, and in 1804 to 1,500,000*l.* The original capital of the Bank of England was but 1,200,000*l.*, consisting of a loan of that amount to the Government.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

*** It is particularly requested that all communications may be addressed—

To the Editor,
*Mining Journal Office,*
26, Fleet-street, London.

And Post-office orders made payable to Wm. Salmon Mansell, as acting for the proprietors


# THE MINING JOURNAL

**Railway and Commercial Gazette.**

LONDON, MARCH 15, 1851.

The Mining Journal is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.


The progress of the gigantic, magnificent, and unique building for the Exhibition of the Industry of All Nations, and the position of the undertaking itself is now beginning to assume that importance, which some few waspish and illiberal individuals, and a very insignificant portion of the public press, endeavouring to wriggle themselves into notice, would have led us to believe was never attainable; that the entire proposal and endeavour to carry out a plan for the concentration at one spot of the world's industry was Utopian, impracticable, and impossible; and that, if possible, it would lead to the paralyzation of our manufactures and commerce; and the ruin and pauperism of our artizans and mechanics. So far we have every proof that the design was based on a solid and practicable foundation, and we have not a doubt, from the generous and approving manner in which the proposal has been hitherto met and responded to by all nations, and the masses of goods for exhibition which are pouring in from all quarters, that there will not be even an imaginative ground for disappointment, but that the great show will be attended by millions from the four quarters of the globe, who will derive both pleasure and profit, and return to their homes, carrying in their minds the elements of those happier, wiser, and nobler pursuits of peace, the ardent pursuits of science and the arts, so nobly contrasting with the horrible results of nations at war with each other, or the destructive effects of intestine commotion. For our own artisans and manufacturers we have no fear in the forthcoming honourable competition; and while we shall rejoice to see the French, the Swiss, the German, or the denizen of any other clime, be rewarded equal to their merits in their own adopted fields of art, we are satisfied that the manufactures of England, as a whole, and as applicable to the most extensive of the necessities, comforts, and luxuries of mankind, and to those important machines by which the most gigantic processes are accomplished, and philosophical research successfully pursued, will come through the ordeal scatheless.

We have been favoured by Mr. Robert Hunt, of the Museum of Economic Geology, with the following list of most of the articles sent in for exhibition in the mineral department—a list satisfactorily indicative of the interest taken in the exposition by parties connected with our mining districts:—

Map of Cornwall (Geological and Mineral)—Symons
Sectional Drawings, and Sections of Ironstone, series of, and Specimens, Yorkshire—J. Bewicke, Grosmont, near Whitby
Plans, Sections, Models, Specimens, &c., of the Newcastle Coal-field—H. Taylor
Section of Scotch Coal-field—Landale
Model of Cornish Copper and Tin Mine—Hancock and Hoskins, Redruth
Dressing Floors at Tywarnhayle—Richard Taylor
Model of Underground Workings of a Cornish Mine (as a plan)—A. Richards, East Pool
Sections, Models, and Specimens, illustrating Lead Mining, Alston Moor—Sopwith
Model for Dressing Tin—John Maynan, Redruth
Jigging Seive, &c.—M. Launder, Redruth
Model of Colliery, in full work, Barnsley—Sutchliffe
Model of Coal Mine and Specimens, Bradford—Shaw
Working Model of Coal Mine, Somersetshire—Solly
Model of Colliery and Minerals in Section, Paisley—Peter
Section of Coal Mining and Specimens of Coal, Liverpool—Bannister
Model, showing Manufacture of Lead—J. Shield, Blandford-street
Model of Coal Mine and Apparatus for Ventilation, Birmingham—Conley
Model of Exhausting Ventilation for Coal Mine, Sundry Mining Machinery, &c., Cornwall—Brunton
Model of Safety Apparatus for Descending Railway Station, Mullingar—West
Model of Machine for Lifting in Mines, Wakefield—Dr. Wright, South Parade
Safety Cage for Mine Shaft—White and Grant, Dalmarnoc-road
Copper Mining Machine (dressing poor ore)—Taylor
Mining Tools used in Collieries—E. Rogers, Abercarne
Rope and Safety Fuse, Cornwall—Hawke
Safety Fuse, Camborne—Bickford and Co.
Cartridges for Blasting—G. Copeland, Falmouth
Iron Ores and Minerals—Butterly Company, Alfreton
Iron Ores, Lostwithiel—Bennet
Three Varieties of Iron Ore, St. Austell—Drew
Black-band Ironstone, Newport, Monmouth—Joseph Latch
Iron Ore, Swansea—S. Benson
Copper Ores, Swansea—S. Benson
" Ulverstone—Stainton
" —Ulverstone Company
" Roscommon, Ireland—Mone
" Leitrim, ditto —Page
Series of all Iron Ore, Dudley—Blackwell
Iron and Copper Ore, Nova Scotia—Archibald
Iron, Copper, and Tin Ore, St. Austell—J. Morcom
Iron and Tin Ore, Bodmin—J. W. Welborne
Tin Ore, Tavistock—F. Dixon
Copper Ores, Helston, Cornwall—Berger and Sons, 12, Cornhill
" Trenance " —Mullion
" Liskeard (Phœnix Mines)—S. Seccombe
" Swansea, Wales—Boundy, Swansea
" " " —Leach, Richards, and Co.
" Dolgelly (Vigra and Clogau)—Harvey
Copper Stone (yellow), Coppaquin, Holyford Mines, Dublin—Glover
Copper Ores, Skibbereen, Mirenhead, and Derrycarhoon), Cork, Ireland—J. H. Swainton
" Burra Burra, South Australia—Joseph
Copper and Lead Ores, Wheal Penhale and Carthew Consols—H. Harrison
Copper and Lead Ores, General Mining Company for Ireland—Thomas Macguire
Lead and Copper Ores, Isle of Man—Edwards
Copper and Tin Ores, St. Blazey (Fowey Consols), Cornwall—Puckey
Mine Tin and Stream Tin, St. Austell—Local Committee
Minerals, Penzance—Local Committee
Mineral Specimens—Falmouth and Penryn—Local Committee
Lead Ores, Callington, Truro—Lean
" Richmond, Yorkshire—Fisher
Arsenic Phosphates (lead), Cumberland—Pattinson
Lead Ore, Wrexham, North Wales—S. C. Broleh
Silver-lead Ores, Killaloe, County Clare—Collis
Lead, &c., Alston Moor—Elliot
Ores and Oxide of Lead, Shrewsbury—T. W. Burr
Silver-lead and Zinc, Isle of Man—Rowe
Zinc Ore and Zinc, Northumberland—Grey
Zinc Ores, Redruth—Davy
Cobalt Ores, Redruth—Blee
Miscellaneous Collections of Metalliferous Mineral Specimens, Devon—Joseph
" " " Ashburton—ditto
" " " Helston—ditto
Iron Ores, Limestone, Lime, Coal Lime, Coal Lignite, and Iron, Sussex—Ross
Minerals, and Processes Illustrating South Wales and Shropshire Iron and Coal Fields and Iron Manufactory, Ebbw Vale Company—Robinson, Berkhampstead
Minerals of Forest of Dean, and Manufacture of Iron—J. T. Thomas, Coleford, Gloucester
Minerals from Forest of Dean—Atkins Montague, The Warren, Lydney, Gloucester,
Minerals from Dean Forest—W. Todd
Manufacture of Iron, South Wales—Crutwell
Minerals of South Wales Coal-field—Russell
Pig-iron, Refined Metal, Black-plate, and Tin-plate, South Wales—Ynisedwyn Com.
Minerals and Fossils of Shropshire Iron District—Randall
Ditto, and Manufactured Iron, Derbyshire—Stanton Company
Iron Ore, Pig and Bar-iron and Steel in Derbyshire—Wengerworth
Yorkshire Iron, Leeds—Beecroft
Bar-iron, Liverpool—Clay
Hematite and Iron from Lancashire—Harrison
" " Whitehaven—Ainsworth
Minerals and Iron Made, Glasgow—Murray
Manufacture of Swedish Iron—Francess
Manufacture of Indian Iron—India Company
Manufacture of Steel, London—Heath
" of Iron, London—Bird
Bar-iron, Tin plates, Llanelly—Phillips
Tin-plates in Manufacture, South Wales—Woodroffe
Steel—Sanderson
Metallic Alloys—Garden and M'Andrew, 34, Dowgate-hill
Mercantile Copper Ores and Stages of Preparation, Redruth—Grylls and Committee
Copper Ore and Manufactured Copper—Le Mesurier, 34, Great Winchester-street
Manufacture of Copper, Redruth—Company
" Copper, Swansea—Vivian
Model of Smelting Furnace, Falmouth—Tresize
Copper Smelting, Swansea—T. F. Bankart, 9, Clement's-lane, Lombard-street
Manufacture and Mode of Tin Smelting, Cornwall—E. Bolitho
Illustration of Tin Smelting Cornwall—T. Bolitho
Minerals, chiefly Metalliferous, from North Wales, &c.
Minerals, Lead, &c., North Wales—Bird
Ore and Oxides of Lead and Metallic Writing, Shrewsbury—Burr
Model, showing Manufacture of Lead, Newcastle—Shields
Lead in various Processes, Newcastle—Pattinson
Lead in various Stages, Stockton—Byers
Lead Processes, Dumfries—Duke of Buccleuch
Galena and Pig-lead, Linares—Linares Company
Silver as Extracted, Llanelly—Sims
Gold and Silver Leaf, Bronze Powders, Metal Leaf, Birmingham—Pinum, Henry, and Co., 29, Newhall-street
Leaf Gold, London—Bennett, 11, Woodbridge-street, Clerkenwell
Gold, Silver, and Copper, for Coinage—Mathison, Royal Mint Refinery
Palladium Platinum, &c.—P. Johnson
Arsenic, Redruth—Thomas Garland
Antimony, London—George Hallett, 52, Broadwall
Sundry Metallurgical Processes—W. Longmaid, 31, Beaumont-street, Mile End
Sundry Metals not hitherto used—Rowlandson
Stirling's Metallic Alloys—Morries Stirling
Oxide—Copper Ore, Fire Stone, Liskeard—Seccombe
Iron Ore, Models of the Field, Iron, Models of Furnace, Coals—Ebbw Vale Company
Non-oxidised Iron—Sussex Iron Ore, Hastings—Ross
" Iron Produced from it, ditto—Smith
" Limestone and Lime, ditto—Roch
" Coal, Hastings bed—Richardson
" Lignite, Hornstone, Hastings bed—Shrewsbury
Cobalt Ore, Basket for Raising Mud, Redruth—R. Blee
Oxide—Mine Tin and Stream Tin, Building Stone, St. Austell—Committee
Truro Collection
Mendip ditto
Lanarkshire ditto
Dublin ditto
Dr. Forbes' Cinnabar and Mercury, California
Coal (a piece which weighs 3 tons)—Thos. Prothero and David Price, Tillery, Newport, Monmouthshire
Galena, Carbonate of Lime, Barytes, Zinc, and Fluor-spar—G. Fortescue, O'Flahertie, of Lemonfield, Oughterard, Ireland
Sulphate of Baryta and Chloride of Barium—William Robertson, Banff
Iron and Coal—Robert Elliott, Pensher Fence Houses
Copper and Lead—Harvey, Tavistock
Tungsten, Sulphuret of Molybdenum—Pattinson, Gateshead
Leads from Flintshire and Arkansas—Mather, Holywell
Lead Ore in Gritstone—Stephen Eddy, Grassington
Copper Pyrites, Cobalt Ochre—Omerod, Manchester
Mining Maps—Symons (a small edition)
Iron Ore—Ulverston Mining Company
Lead Ores from Greensides—Jacob Walton, Greenends, Alston, Cumberland
Barytes and Quartz—John Cowper, Keswick, Cumberland
Chromate of Iron and Clays—Sir A. Nicholson, Fettar, Zetland
Carbonate of Lead—W. Wallace, Hillersdon-terrace, Nenthead, near Alston, Cumberland
Various Metalliferous Ores from Anglesey—E. Evans
Lead Ores—Messrs. Francis, Davies, and Taylor—Aberystwith
Various Minerals—Gleig, Shetland
Sundry small Specimens to complete the Series of Metalliferous Ores—R. Hunt

There are two or three monster specimens of coal which have not yet arrived—a notice of one of which (the Haines' coal) will be found in another column, and some few other metallic and mineral specimens yet to be inserted; but the above, being the first which has appeared in print, is highly interesting, and tolerably conclusive as to the results.

We have also received the catalogue of minerals forwarded from Canada. They comprise specimens of iron—magnetic, specular, bog, titaniferous, and various other interesting and important descriptions; sulphurets of copper, zinc, lead, and nickel; native silver and gold; uranium, chronium, cobalt, manganese, dolomite, magnesite, barytes, talcose slate, steatite, serpentine, ferruginous clay, lithographic stone. Agates, jasper, labradorite, sunstone, hyacinth, amethyst, chirt, and jet, applicable to jewellery. Quartz sandstone, pitchstone, and basalt for glass-making. Phosphate of lime, gypsum, and shelly marl for manures. Millstones and soapstones; asbestus and plumbago; grindstones, hones, roofing slates, and flagstones; building materials—as granite, sandstone, calcareous sandstone, limestone, lime, clay, brickearth, and marble; combustible materials—as peat, petroleum, naphtha, and asphalte; moulder's sand and fuller's earth. The localities from which these numerous specimens of the prolific produce of the colony are obtained, stretch over the whole territory of British America, from the North Pacific to the Atlantic Ocean. They serve to show the mineral wealth of the country, if judiciously explored; and such displays will tend in a great measure to induce the investment of capital for their development, encourage emigration and settlement, and advance the best interests of the inhabitants.

We have from time to time alluded to the several tariffs touching on our metallic manufactures, which have been passed in different countries. The German Zollverein has long been thought to have exercised a considerable influence on the commerce of Germany. The liberal Austrian tariff, proclaimed a few days since, which there is no doubt will obtain, in due time, the sanction of the Emperor, has alarmed the Prussian Government, who are now willing to coalesce with the Governments of Hanover, Oldenburgh, and the free cities, who have strenuously opposed the duties of the Zollverein. Among the duties imposed by the Congress was ½d. per cwt. on lead ore; on zinc, import ½d., export 4½d. As it was supposed, and *much agitated* in the Congress, that cobalt and nickel were particularly required in England, the ministerial proposal that 10¾d. should be levied on cobalt was negatived, and a duty of 6*s.* 2¾d. was accordingly passed. Several other duties were passed upon iron goods, zinc, and metallic manufactures: these are a modification of the old tariff. The goods coming seaward from Italy have an additional duty levied on them. It would be difficult to surmise, from the indiscriminate way in which the tariff has been arranged, what the statistics could have been which have guided the Austrian statesmen in their deliberations. Be it as it may, there have been sufficient to alarm the northern parts of Germany, and though they are small in themselves, may be considered as precursors of a great reform.

Great uncertainty has hitherto prevailed in the minds of capitalists and the public as to the remunerative character of the Electric Telegraph in this kingdom. The general impression has been, up to the present time, that the old Electric Telegraph Company had lost large sums in the exercise of this wonderful invention. It was well-known that in America the various telegraph companies paid handsomely, and that the proprietors were most amply remunerated for their outlay; most of the companies there have paid their 10 per cent. per annum, and few, if any of them, have declared dividends less than 8 per cent. In Prussia it was known that in the very first year the Government (who, in that country, are the owners of all the telegraphs) obtained, from sending messages for the public, 5 per cent. on their outlay, after paying all their expenses, and sending all the Government intelligence for nothing. Yet, when one inquired as to how the telegraph paid in England, the universal answer was—"Very badly indeed—it is one of the most ruinous of investments." We believe that on every Stock Exchange in this kingdom such was the prevailing opinion up to a very late period; and persons joining in the formation of a second telegraph company were looked upon almost as devoid of common prudence. Opinions, however, change with the times—lately the working of the old Telegraph Company has been the subject of investigation before the Privy Council. Facts have been brought to light which hitherto it was out of the power of the public, or any one who was not behind the scenes of the old company, to obtain.

The old company applied to the Privy Council for an extension of the first of their 38 patents, on the grounds that they had made little or no profit by the exercise of their inventions; they urged, in the strongest manner, the inadequate return they had obtained upon the capital embarked. Accounts were handed in to prove the inadequacy of such return.

This extension was opposed by the British Telegraph Company, who, as a matter of course, sifted the accounts submitted—and what was the result? It was proved from those very accounts, that instead of the telegraph not paying, it was one of the most profitable investments of the day, and the extension, as a matter of course, was refused by the Privy Council.

It was shown that since the old company commenced work they had already received, for *patent right alone*, no less than 122,285*l.*, besides making a profit of 48,048*l.*, by erecting telegraphs and keeping them in repair. These sums, it must be observed, were wholly exclusive of the profits made upon the working of their commercial telegraphs, which, in the three years they have been in use, have yielded a clear profit of 20,179*l.* upon a capital of only 104,229*l.* (the amount embarked in their construction). It was proved that, in the year 1850, the clear profit applicable to dividends on this 104,299*l.* was no less than 10,075*l.*, being at the rate of very nearly 10 per cent. per annum.

Such were facts brought to light at the late inquiry before the Privy Council, and that, too, from accounts submitted for the very purpose of showing the *unprofitableness* of the undertaking. What the profits really may have been, we know not, but they cannot have been *less* than the above, as the very object of the production of those accounts by the old company was to make the concern appear as unremunerative as possible.

When these results were submitted to the various Stock Exchanges in the kingdom, the members were struck with astonishment, and they wondered how they could possibly have been deceived so long.

To the British Telegraph Company, who brought these facts to light, the thanks of the press and the public are due, for great leniency has hitherto been shown towards the old company, both with regard to the high charges made by them and the inadequacy of the means of transmission, and that solely in the belief that the old company were not receiving an adequate return on their investment, and that, therefore, it was unfair to be hard upon them, and to press them for lower charges and better accommodation.

Upon a full investigation of the accounts before us, it is evident that the old company could, if they had chosen, have paid an annual dividend from all their various sources of profits of about 20 per cent. per annum. It appears, however, that they have chosen to give *bonuses* instead of making *dividends;* and it was stated in evidence before the Privy Council, that in one year alone, when only 35*l.* was paid-up on the 100*l.* share, that a *bonus* of 15*l. per share*, or nearly 43 per cent. on the paid-up capital, was presented to the shareholders. Irrespective of this enormous bonus in one year of 43 per cent., it appears also that the company have declared dividends of 4 per cent. per annum, besides making other smaller bonuses, not clearly set forth.

With these facts before the public, we need offer no opinion as to the prospects of a new telegraph company. What the public desire is cheap charges and better accommodation than is now afforded; and whatever telegraph company it is who are prepared to

carry this out (whether the British Company or any other, it matters little), and to act fairly and honestly towards the public, we feel certain that they will not fail to receive at their hands a return fully adequate to the importance of the undertaking.

The second reading of the COMPANY of COPPER MINERS' bill has been passed without opposition, in the House of Commons. Though this bill, if carried through, may present a solution of the company's difficulties as they now stand, we venture to ask will this assist them for the future? We have for a long period deplored their unfortuate position. The bill is now about to go into committee: last year, the preamble not being proved, it was thrown out. According to the tenure of the present bill, the debenture holders are required to take stock for the amount of their claims: when personally applied to, they have demurred. According to the bill, the directors have the right to borrow 150,000*l.*, without the consent of a general court, and then further to demand the aid of the shareholders. At this time we do not think it fit to enter further into the matter, but we cannot but express our opinion that a ruinous precedent will be established if this enactment is passed, for every creditor will be obliged to become a partner in an insolvent company.

The propriety and necessity of having some place of meeting where mining business could be legitimately transacted, on fair and equitable principles, has, for some considerable period, occupied the public attention. Although there are many honourable men at present pursuing the calling of mining brokers, or agents, yet, unfortunately, instances have occurred that this business has been thrown into improper hands, and conducted in so discreditable a manner as to shake the confidence of the public, who, on account of the venality of some two or three, have condemned the general body. In our Journal of the 2d of November, we mentioned that a meeting had been held at Messrs. COODE and BROWNE's for the purpose of forming a Mining Exchange—the object of such being to furnish a mart for mining, accumulation of statistics, &c., and the legitimate transaction of business. The committee appointed were Messrs. W. A. THOMAS, FIELD, J. Y. WATSON, and LA SERRE. It was originally intended that a *locale* should be found to constitute the Exchange: difficulties, which it would be unnecessary here to allude to, arose; and, after long deliberation, the project was abandoned. Negotiations were then opened with the "Stock Exchange," in order that a branch of that establishment should be set apart for mining transactions, and the admission of qualified parties to conduct that business. These negotiations are still progressing, and are on the point of conclusion, and we believe we shall be in a position in our next to inform our readers of the rules and regulations adopted by the committee for the admission of members and government of the body. It would be premature for us here to anticipate what these regulations may be, or attempt to discuss questions previous to their being fairly brought under public notice. We, as well as others, have seen the necessity of a change. We are aware of the exertions made by several parties to effect a salutary and efficient reform, though this may be open to objections, and not meet the views of all parties. We are convinced, from the character and position of the gentlemen alluded to, that all at present is fair and honestly intended. Until we are in possession of the result of their labours, it would be unwise to hazard chimerical opinions, or suggest elaborate amendments, without knowing whether improvements were required.

We have for some years past called the attention of our readers to the vast sources of wealth which lie hidden in the peat bogs of Ireland, the wide field which they opened for the profitable employment of capital, and the industrial resources which they contained for the necessitated and famishing population. We have already, on several occasions, noticed the progress of the patent process of Mr. JASPER ROGERS, now being adopted by the Irish Amelioration Society, who have several stations on the bog of Allen, in the county of Kildare, at which the profitable conversion of peat bog into charcoal and numerous valuable commercial products is steadily progressing. We are happy to find that the laudable exertions of this society are being followed up by others; and as the field of enterprise is wide enough for all, there is every prospect of future success for the adventurers, and a vast relief to the working millions.

We have before us a prospectus of the British and Irish Peat Company, formed for manufacturing peat under a patent taken out by Mr. REES REECE, who, having applied himself to the investigation of the properties of peat, after many trials and experiments, which took some years in the elucidation of the subject, succeeded in effecting the complete separation of its elementary constituents in a pure form, and of great value as commercial commodities. This is effected by a peculiar process of combustion, or destructive distillation; and, unlike the treatment of peat for the production of charcoal in closed retorts, and collecting the volatile and condensible gaseous products in the usual method, this plan consists in supporting the combustion of the carbonaceous portion of the peat by atmospheric air, without the aid of extraneous fuel, and not very dissimilar to the blast-furnace for the smelting of iron. In the latter, however, the products of combustion are wasted; in the former they are preserved, by a peculiar arrangement of flues and construction of furnaces, of which there are two at work together—one being filled while the other is in blast: 100 tons of peat are decomposed every 24 hours, in two furnaces of 10 ft. diameter each. The obvious products are tar and a watery liquor; the former is, however, divisible into paraffine, heavy oil, and light oil; the latter contains ammonia, carbonic acid, acetic and pyroligneous acid, and pyroxelic spirit. The gaseous products are carbonic acid, oxygen, hydrogen, and nitrogen: 100 tons of peat give 10,000 gallons of liquor, 1000 gallons of tar, 6,269,129 cubic feet of inflammable gas; the 10,000 gallons of liquor give 1 ton of sulphate of ammonia, sufficient acetic acid to give 13 cwts. of grey acetate of lime, and 52 gallons of pyroxelic spirit. The tar yields 300 lbs. of paraffine, 200 gallons of light hydro carbonaceous oil, and 100 gallons of more dense or heavy oils. Our space will not allow us to go through the process of the entire purification, and rendering fit for commercial purposes these several substances; but as to the tar, we may state that, on being brought to a temperature of 100° Fahr., it melts when it is incorporated with about 3 per cent. of sulphuric acid, hot water being added. On being left to itself, it separates into two portions—the bottom comprising acid water and impurities, the upper paraffine and oils; this upper mixture is then drawn off and distilled. The first half of the condensed vapour consists of oils of the naphtha family; the other paraffine and dense oils, and, on cooling, deposits paraffine in a crystalline state, which is separated by steaming and pressure. The odour, however, is still bad, and this is got rid of by steam and pressure, bleaching and deodorising by chloro-chromic acid. The oils are also purified by sulphuric acid and lime.

From the enormous quantity of air blown into the furnace, the oxygen is taken up by the carbon; and passing through the heated mass, passes with the nitrogen and the generated gases into carbonic oxide and hydrocarbons—the incondensible products remaining for use as fuel to work the steam-engine and heat the boilers. One-fourth only of the inflammable gas is required for the immediate purposes of the factory; the remainder may be applied to other purposes. There also remains 4 tons of slag. With respect to the value of these several productions, we may mention that sulphate of ammonia is extensively employed in the manufacture of carbonate and muriate of ammonia; and is extremely valuable as manure—price, 12*l.* per ton. Acetate of lime is in extensive demand by calico printers, 14*l.* per ton; pyroligneous spirit, used by varnishers, hatters, and in lamps, 5*s.* per gallon; naphtha for polishes, varnishes, and dissolving caoutchouc, gutta percha, &c., 1*s.* per gallon; heavy oils, valuable for making lubricating substances, and for common lamp oils, 1*s.* per gallon. The paraffine will, doubtless, prove a valuable product; one of our largest candle manufacturers has offered 1*s.* per lb. for all the company can manufacture. Little was known of this valuable vegetable product till a few years since. It was determined by foreign chemists to be a "solid carburet of hydrogen." Dr. CHRISTISON obtained it from the petroleum of Rangoon, and called it *petrolin*; and Dr. REICHENBACH discovered its presence in the products of distilled beech tar. In appearance it is a *fatty, but rather firm solid*; it is *wholly inodorous*. At 110° FAH., it melts into an oily liquid, and evaporates without change. It *burns with a pure white flame*. It is soluble in alcohol, oil of turpentine, naphtha, and the fat oils, when heated; and it *unites with spermaceti, wax, and most fatty bodies by fusion*. It consists of six of carbon and one of hydrogen. These singular properties fit it in a remarkable manner for the *manufacture of candles of a high degree of purity*, which are found in use to emit no smell, and to give an intense colourless light.

From this general description, it will be tolerably clear that immensely valuable results will arise from the operations of this company, and from the standing in society of the directory and other parties connected with its formation we doubt not it will be carried out in a spirited, legitimate, and *bonâ fide* manner. It is incorporated by Royal Charter, dated 7th March, 1851, confining the responsibility of each proprietor to the amount of his shares; the capital is to be 120,000*l.*, in 6000 shares, of 20*l.* each, with power to increase it to 300,000*l.* The directors have made an advantageous arrangement with Mr. REECE, the patentee, for the purchase of the patent right, that gentleman being so confident of the successful and highly profitable results which will ensue, that he has agreed to take the entire consideration in paid-up shares, the capital being, therefore, entirely appropriated to the company's manufacturing processes.

The profit estimated from actual experiment, at the prices above given, from 36,500 tons of peat, costing, in its entire manufacture and carriage, 11,717*l.*, is 11,908*l.*; and by extending the annual operations, of course larger returns, applicable to dividends, will be the result.

## THE CENTRAL GAS CONSUMERS' COMPANY AND THEIR CONTRACTORS.

A dispute of considerable magnitude has arisen between the directors of the Central Gas Consumers' Company, and Messrs. Rigby, the contractors, involving the amount of upwards of 30,000*l.* We are not yet in possession of the particular points: there are claims on the part of the contractors, and counter claims on the other hand advanced by the company. We have heard that these will not be the subject at present of law proceedings, both parties being willing to submit their disputes to arbitration—this has been agreed to. Mr. Raikes Currie, M.P., having been appointed arbitrator, we trust that under his able management a solution of these complex difficulties may be arrived at, satisfactory to both parties; as, from the immense stake involved, and the numerous interests affected thereby, it cannot but be a subject of regret that such an important matter should remain in doubt.

THE ALKALI MANUFACTURE.—It may not be generally known that there are 37 alkali works in Great Britain for the manufacture of soda, potash, and carbonate of ammonia. These are distributed as follows:—Newcastle-on-Tyne, eight; St. Helen's, eight; Glasgow, four; Birmingham, Blackburn, Wigan, Bolton, Runcorn, Swansea, North Wales, and Bristol, two each; and Wakefield, one. The manufacture and demand is greatly on the increase; in 1846, the quantity returned was 16,480 tons, of the value of 152,117*l.*; 1847, 22,944 tons, 211,774*l.*; 1848, 26,342 tons, 243,135*l.*; 1849, 34,368 tons, 303,469*l.*; and in 1850, 44,407 tons, of the value of 402,129*l.* Potash is made by lixiviating the ashes of land plants; soda, which was formerly obtained from marine plants, is now almost wholly obtained from common salt, and carbonate of ammonia is cheaply and conveniently obtained from the gas establishments—the refuse matters condensed from the dry distillation of coal giving it in abundance.

THE SLATE TRADE.—A considerable increase has taken place during the last half-year in the export of slates from the various quarries in North Wales—a circumstance which has been attributed in a degree to the removal of the brick duty, thus causing an impetus to the erection of houses. From the port of Caernarvon alone the exports for the last half-year have been 61,400 tons—an increase of 11,000 tons over the prior half year; and for Feb. the shipments have been to the extent of 6200 tons. In other ports a large increase is apparent.

REPORT OF THE LANCASHIRE EXPORT COAL ASSOCIATION.—The first annual report of this association has just been published, and it details at some length the steps taken by the association for facilitating the export of coal from Liverpool. After alluding to the association's change of name, the report says the committee, conceiving that the first and most important object requiring attention was the imperfect state of the connections at present existing between the pit's mouths of the several collieries and the shipping ports, and the consequent extra expense of transmission and injury to the coal, at once put themselves in communication with the several railway companies, and the Leeds and Liverpool Canal Company, whose lines of communication afford the chief means of conveyance for the coal of the district, and with the Liverpool Dock Trust, over whose property the coal is shipped. With those several bodies the committee have had interviews, and had pleasure in stating that in each case there appeared no indisposition to afford the trade the same facilities it possesses in other places. The correspondence which passed between the dock surveyors and Mr. Laird, which has been before published, is laid before the association, and the report intimates that the London and North-Western and the Lancashire and Yorkshire Railway Companies have instructed their engineers to make out plans for connecting the respective lines with the Victoria and Stanley Docks, with the view to the shipment of coals in those docks. When these plans are complete, the committee of the association will again communicate with the parties interested. In conclusion, the report calls on the coal proprietors of the district to support the association in the objects they have in view, which were not to give any particular coal field a local advantage, but placing each and all in a position to compete in the markets of the world for a fair share of the trade, which only wants cultivation to be developed to an extent limited only by the energies of the coal proprietors of the district, and the increasing trade of the Mersey. The Earl of Balcarras is chairman, James Brancker, Esq., deputy-chairman, and William Laird, Esq., secretary of the association. The committee is composed of some of the most influential gentlemen connected with the coal trade of the district.

ANGLESEA COAL COMPANY.—A company is now forming for working the coal-field of Berw and the coal royalty of Maldreath, situated in the Vale of Maldreath, in the Isle of Anglesea. From the prospectus now before us, it appears that the promoters have obtained these properties on highly advantageous terms. In the Berw coal-field there are four workable seams—3, 4, 6, and ¾ feet, at depths respectively of 99, 120, 155, and 185 yards from surface. The colliery has been in profitable working for several years, but on a limited scale. The coal in the two former seams is of good quality for steam or household purposes; and the two latter equal to the best Newcastle. The Maldreath coal measures cover an extent of 200 acres; and both properties are intersected by the Chester and Holyhead Railway. There is every geological certainty that the property contains all the Berw seams; but the fact will be ascertained by borings before any expense for a shaft is incurred. The local markets are Bangor, Beaumaris, and Caernarvon; but hitherto the demand has been so large, that the whole of the coal raised has been sold at the pit's mouth for ready money. The port of Holyhead is now brought by railway within 16 miles of the collieries, offering a sea outlet for increasing the amount of sales to almost any extent. The steam-packets alone consume 15,000 tons per annum; and the coal of the Anglesea Company can be supplied to them considerably under the present price; while the short voyage of only 60 miles to Dublin will open an unlimited market for the coals in that city, where the quantity imported from England and Scotland exceeds 400,000 tons per annum. The estimated profit from the Berw Pit alone is 6000*l.* a year; while on opening the Maldreath field, the sale is calculated at least at 40,000 tons per annum, without interfering with the Berw sales. The capital is fixed at 20,000*l.*, in 2000 shares of 10*l.* each. A deposit of 1*l.* per share is considered sufficient for six months to come.

GAS.—Referring to the interesting paper on the "Progress of Gas Lighting," in last week's Journal, we may mention that the contemplated Exhibition of Gas Apparatus at the Polytechnic Institution, in connection with the Association, is progressing most favourably: the list of contributions towards carrying forward that object amounts to above 400*l.*, including 100*l.* from the Imperial, 50*l.* from the Chartered, 50*l.* from the London, and 30*l.* from the Equitable Gas Companies; also subscriptions from the Southampton, Ipswich, Warrington, Truro, Peterhead, and other provincial companies.

HYDRO-CARBON GAS.—At a meeting of the Southport Improvement Commissioners, on Tuesday, a statement of the gas account was read, from which it appears that the cost of manufacturing the hydro-carbon gas with the present consumption, including interest of money invested in the plant, materials, wages, wear and tear, and all other possible expenses, is 5*s.* 3*d.* per 1000 cubic feet. The present charge to the consumer is 6*s.* 8*d* per 1000 cubic feet, leaving a profit to the credit of the ratepayers of 1*s.* 5*d.* per 1000 cubic feet.

AMERICAN ZINC.—The *New York Herald* of the 21st Feb. says—"A small lot of New Jersey Mining Company shares appeared in the market to-day, and sold at an advance of half per cent. on previous sale. This company has sent about 200 tons of its zinc ore to London, for the purpose of making experiments in the presence of scientific men in that city—confident of proving that it is the purest article of the kind ever extracted from the bowels of the earth."

DISCOVERY OF A SULPHUR MINE IN UPPER EGYPT.—M. Delaporte, French Consul at Cairo, has sent information to the Minister of Foreign Affairs of the discovery of a sulphur mine in Upper Egypt, between Kench and the Red Sea. This mine was first conceded to a Sicilian, by whom it was discovered, but the Egyptian Government has since conceived the idea of working it on its own account, and it is probable that the produce of this mine may lead to a reduction in the price of this important article of commerce.—*Galignani's Messenger.*

## ASSIMILATION OF THE RAILWAY GUAGES.

Mr. Benjamin Smith, of Caernarvon, has forwarded us the description of a plan he has arranged, by which the narrow-guage lines may be converted into the broad-guage system, by gradual, safe, easy, and inexpensive degrees. The narrow-guage principle being so extensively developed, and found in every respect amply capacious and complete for all purposes of transport, there is not much chance of the plan for its alteration, as recommended, being seriously even thought of. Nor is the plan new: we remember, seven or eight years since, it was proposed, when the matter was discussed during the sittings of a railway commission, to lay down rails outside the narrow-guage lines, and within the broad-guage, thus enabling all the trains to run on both systems of railway. But the expense, inconvenience, and danger which must have attended the change, caused the proposal to fail, and the narrow was recommended as the national guage. When we consider that between 5000 and 6000 miles of the latter railroads now interlace and intersect nearly every part of the kingdom, while the broad-guage is confined to less than 500 miles, in one district of roads, and more particularly the diminished dividends which have been produced in all, it does not appear very probable such change will be entertained by any of the companies. As, however, there are several good suggestions in the description, and particularly respecting the alteration in the construction of the carriages, we will proceed to notice a few of them.

The plan suggested, is to convert the narrow-guage railways into broad-guage lines, by laying down rails of the 7 ft. width on the outer sides of the present narrow lines, forming them into four-railed mixed guage lines by degrees, until the traffic is entirely transferred, when the inner rails might be removed. Mr. Smith assumes that this change may be gradually accomplished, without any additional cost, excepting extra turn and traversing tables,—proposing not to take up the old rails till worn out, replacing them by the broad-guage; but we must confess we cannot clearly see how it is to be done without considerable outlay, as the permanent way of the broad is more costly than the other guage, and it would be necessary to complete the former throughout the country, to meet Mr. Smith's views, before a rail of the narrow-guage lines could be removed. The arches, bridges, cuttings, and embankments he proposes to remain as they are. This would be accomplished by the alteration proposed in the construction of the carriages at present in use on the broad-guage to meet the altered state of things, and is undoubtedly the most happy suggestion in the description. By the present arrangement of the cumbrous body overhanging the wheels, the whole is top-heavy, and at high velocities oscillates in a side direction, oftentimes in a fearful manner, and which has too often caused the train to run off the rails. To enable the carriages to have wheels of larger diameter attached, which are so much more safe at great speeds, it is proposed to place them *outside*, instead of *under* the carriage floor, which can be effected without diminishing the size of the body, by giving the lower parts of the sides a slightly greater inward curve than at present, and the passing distance between the steps of two trains would remain the same as at present, or might even be increased, while, by keeping the centre of gravity low, the trains would acquire more stability, and the public would travel with much greater safety and comfort. To prevent the greater amount of atmospheric resistance on a number of small carriages, Mr. Smith proposes to build them to hold 48 passengers in the second, and 36 in the first-class carriages. The plan was submitted 11 years ago, by Mr. Smith, to the Great Western directors; and the then traffic superintendent was so fully satisfied of its advantages, that he promised to have the change effected, but nothing has been done in the matter since. The disadvantages of having only four wheels to a carriage are clearly shown, and the greater safety obtained by having three on each side, which is proposed in this new description of carriage. Models in illustration of the proposed plan will, we understand, be sent to the Great Exhibition, in Hyde-park.

FRENCH SCHOOL OF MINES.—During the year 1850, in this establishment there has been assayed 83 samples of iron, 80 of copper, 196 of argentiferous lead ore, 19 of zinc, 8 of silver, 24 of gold, 24 of platina, 4 of mercury, 1 of antimony, 3 of tin, 5 of manganese, 3 of steel, 15 of copper and semi-metals allied thereto, 27 of combustible minerals, 58 of calcareous earths, 27 scorias and slags of various descriptions, besides a variety of others, comprising dolomite, titanium, chromate of iron, salts, litharge, soda, slate, &c., in the whole comprising 643; the samples received have been 893. These have been assayed for purposes of public at well as private utility, and show the importance and necessity of such a general establishment, as at a trifling expense much waste of capital can be avoided. At another time we shall further refer to this subject, our limits at present not permitting us to enter more in detail.

STEAM-BOILERS.—Mr. R. Prosser, C.E., of Birmingham, has just patented some improvements in supplying steam-boilers with water, and in clearing out the tubes of steam-boilers, which comprehend—1. An improved compound feed and brine pump, the characteristic qualities of which (however it may be constructed) are that the piston is impelled in the act of discharging the waste water, or supersaturated brine from the boiler by the hot brine itself, by which means no greater amount of power is repuired to work the compound pump than would be necessary for a small feed pump only—that the waste water is not impeded in its escape by the resistance of a loaded discharge valve as heretofore used in brine pumps—and that the valve of this pump is either a slide or other suitable valve opened, and shut by mechanical means, so as to admit of the entrance of the brine into the pump, and its free and unimpeded discharge therefrom.—2. A method of extracting the air from feed water by the combined action of heat and a force-pump, so as to prevent the corrosion of iron boilers, and of the iron tubes employed therein.—The improvements "in clearing out the tubes of steam-boilers" consist in causing a jet or blast of steam to pass from end to end of the tubular flues, so as to remove the soot, ashes, and other deposits accumulated therein.

PATENT STEAM-CRANE.—One of Messrs. M'Nicol and Vernon's cranes has been tried at the Brunswick Saw-mills, Liverpool, and considerable interest was excited, in consequence of this invention being in course of erection at the Hull Docks; and the attendance was, consequently, great and important, numbering several members of the dock committee, Mr. Sanbach, Mr. Steel, Mr. Braithwaite Poole, Mr. West, of Hull, and many other influential gentlemen. The invention, as has been already stated, is peculiarly applicable to raising heavy bodies, and transporting them to reasonable distances; and the experimental trial was made in the removal of a quantity of timber to a distance of 100 ft. A number of heavy logs, unitedly weighing over 20 tons, were lifted, transported, and re-piled in the short space of 20 min. 16 sec., at a cost in labour of something under 3d. The invention is an important one to the timber trade, and its eligibility for application to dock quays seemed to be universally dmitted. The machinery worked admirably.

ELECTRIC TELEGRAPHS IN BELGIUM.—A Royal decree has been published, fixing provisionally the rate of charges for the transmission of correspondence by the electric telegraph on the lines of railway throughout Belgium. The following shows the basis of the tariff of charges:—

| Distances. | 1 & not exceeding 20 words. | 21 & not exceeding 50 words. | 51 & not ex. 100 words. |
|---|---|---|---|
| For 1 and not exceeding 75 kilometres | 2*f.* 50c. | 5*f.* 0c. | 7*f.* 50c. |
| For 76 and not exceeding 200 kilometres | 5 0 | 10 0 | 15 0 |
| Above 200 kilometres | 7 50 | 15 0 | 22 50 |

The maximum of any one communication is limited to 100 words, except the telegraph be quite disengaged, in which case there is no limit fixed. Communications by night are to be charged double. Arrangements for the transmission of correspondence by electric telegraph in connection with the Belgian lines have been made with Prussia, Austria, Bavaria, and Saxony. In all cases pre-payment is required. The officers of the telegraphic service are bound to secresy by oath.

THE ELECTRIC TELEGRAPH.—During the last few days numerous memorials have been sent to the directors of the London and North-Western Railway Company, praying them not to give to the old Electric Telegraph Company the exclusive use of their lines of railway; and meetings on the subject have taken place in many large towns, as Liverpool, Manchester, Glasgow, Leeds, and Huddersfield. The ground taken is, that a monopoly would be injurious to the railway shareholders and to the public, and unfair to the British Telegraph Company. The enormous sums charged by the existing telegraph company in England are found a great burthen on our commercial interests. The cost of a communication between London and Paris is as much as for 10 times the distance in the United States.—*Daily News.*

RAILWAY STATISTICS.—A Parliamentary return has just been published, showing that the total number of persons employed on railways in the United Kingdom, on the 29th June last, was 159,784; of which 114,013 were employed in England and Wales, 27,277 in Scotland, and 18,494 in Ireland. The length of lines open in the United Kingdom on the 29th June was 5447 miles and 10¾ chains, of which 4273 and 218¾ chains were in England and Wales, 763 and 10½ chains in Scotland, and 410 and 59 chains in Ireland. There are 1504 miles in the course of construction in the United Kingdom. The length of line neither open nor in the course of construction, 5132 miles and 58¾ chains. The total length of line authorised was 12,083 miles and 70 chains. The diminution in the length of railway authorised in 1850, as compared with 1849, arises chiefly from powers formerly granted for the construction of lines having been repealed or having lapsed by effluxtion of time. There were 97,081 labourers employed on the railways in the United Kingdom.

# Original Correspondence.

## FORM OF THE BLAST-FURNACE, &c.

SIR,—I have been much pleased with Sir F. C. Knowles's perspicuous letters on the form and action of the blast-furnace. As he now defines the term, conduction, merely to distinguish the heat upwards from that of combustion, there can be no objection to it; the intention was, however, clearly expressed in the first letter, although the simile of a bar of iron heated at one end was an inadequate illustration of the effect, because the heat is not communicated by its own ascensive force from the bottom, but actually carried or conducted by the successive contact of the heated gases through the materials. The amount of heat communicated in a given section is *diluted* by extending the area in those upper regions, where the concentrated gas would impart an excess of temperature. And this can be carried to a greater extent than the actual difference of heat imparted, because the greater width accumulates a mass of materials, which retain and economise the heat, so that a given quantity goes a great deal farther than when expended in a small area, where it is exposed to greater loss by radiation from a larger proportionate circumference. I am glad to see this subject so thoroughly taken up, involving as it does the true and available principle for further improvements in the blast-furnace. The larger area, as Mr. Parry points out, enables each section of the materials to receive the heat more uniformly and gradually by its slower descent. A small filling place is only removed one step from that which is known to be a most disadvantageous circumstance, permitting the furnace to sink low before it is charged. A wide filling place presents the opposite beneficial extreme, allowing the charge to be taken with the smallest proportional descent of the materials. The deductions of temperature are shaded off, as it were, in their lamina, and the expulsion of volatile matter greatly facilitated. The doming in of the furnace to a certain extent is required, not only to obviate the mechanical difficulties of filling over an enormous mouth; but it has a beneficial effect in concentrating again the stream of gas, and condensing the amount of heat which remains after the large abstractions made during the ascent into a smaller diameter, so that the highest region may not become too cold, but the due proportion of heat be maintained.

It is undoubtedly interesting to see the calculations of exact science applied to the various actions in play, so long as they are controlled by the strict limitation which Sir F. C. Knowles most properly imposes. They may thus be used as an aid, when the main physical agencies are grasped and held inveterately as their ultimate test. The attempt to substitute abstract considerations for realities has done infinite mischief in great things as well as small. Indeed, we know nothing whatever of principle, except as an enunciation of fact. The man of science who attempts to advance by divorcing the former from the latter is involved in a one-sided progress. Like a fly with one wing, he flutters round and round in a circle—a species of nugatory motion, which has more than anything else brought science under the derision of practical men.

The deoxidation of magnetic ores is a subject of great interest and importance. *A priori*, it might be supposed that an ore already deprived of one equivalent of oxygen would offer the greatest economical facilities to the smelter; but the reverse has been found in practice. If the ore be small, it finds its way downwards too soon; if it be massive, it still reaches the hearth in an inferior stage of cementation to the peroxides. I think it is not difficult to understand the reason of this, and why such ore demands peculiar appliances for retarding its descent. If, as I believe, the whole process of deoxidation and cementation, whether in smelting or converting iron to steel, is effected by the agency of the gaseous oxide of carbon, it is evident what advantage must be gained by porosity of structure in the masses subjected to its action.

I suggested, in October, 1849, an experiment for putting this fact to an accurate test. Mr. John Mitchell undertook to perform this interesting and delicate experiment, but as yet he has not published the result. Now it is evident that, when the first equivalent of oxygen has been liberated from the pores of a peroxide, greater facility is presented for the access of the gas to remove the last equivalent from the protoxide which remains. And this is necessary, because it is well known that the last portions of oxygen adhere to a metallic oxide with far the greatest tenacity. And, further, it is a great step in a chemical process to have set the reaction fairly to work—its *continuance* is easier than its commencement. Therefore, when a dense magnetic ore of iron is exposed to the action of the smelting-furnace, there is no facility for the entrance of the carboniferous gas into the interior. There is no porosity, and the chemical change has to be commenced under the most unfavourable conditions. If before this be fairly established the ore reaches a region where its great fusibility is affected, and especially if it contains, as is frequently the case, a small proportion of sulphur, an impermeable glass of iron will coat the surface, and an ore containing above 70 per cent. of iron will pass through the furnace, particularly when mixed with other materials with the reputation of containing none at all. This has actually been the case with the most splendid magnetic ore this country produces. The circumstances attending its use were eminently favourable to such catastrophe. The furnaces were of old construction, some of them, if I recollect rightly, having been uninterruptedly in work for 30 years, with the exception of a day or two's repairs, gained by turning off the blast, and stopping down the fire, to replace the upper part of the lining, which has always been restored in its original proportions of 5 or 6 feet at the filling place. When masses of magnetic protoxide are substituted in such a hot top for a light gravelly ore of 40 per cent., containing some lime, and chemically combined with 10 per cent. of water, and sometimes more than as much again in mechanical mixture, what chance is there of its being equally deoxidated with the rest of the burden of porous calcined ironstone? As happens to all of us at times, it was abused in word, because it had been first abused in deed.

It is well known that no ores have such a facility of reduction as carbonates of iron; they have the greatest gaseous combination, and, therefore, present the greatest porosity. The common ironstone is not only porous after calcination, but the particles of oxide are diffused, or diluted, over a surface of earthy matter—the most favourable condition to promote chemical action. The excessive density of a magnetic protoxide leads to quite different effects, and creates peculiar difficulties. I have lately received a number of Poor's *American Railroad Journal*, containing an account of such difficulties with rich ores, and the means of obviating them. It appears there are two rival patents in the United States for a process, introduced as far back as 1844, for treating rich ores, and which, it appears, immediately doubled the make of iron with the same expenditure of fuel. This is to grind the ore with a calcareous marl into a sort of mortar, which is thrown wet upon the furnace. A species of porous artificial ironstone is thus formed, and the descent is retarded. The iron sand of Porto Novo had to be charged as a paste with water, to prevent its hurrying to the bottom of the furnace. A plan, precisely similar to the American mode, which I have only now become acquainted with, occurred to me in 1845 for similar objects. This was to combine small ore into a paste with clay, adding coke-dust to promote deoxidation. These were to be formed into masses and dried (not thrown on wet); and where, as in America, the price of iron will warrant the cost of preparation, I have no doubt a great saving of fuel would be effected, both from the composition of the masses and the openness they would give to the working of the furnace. I afterwards learned that exactly the same device had been proposed by Berthier to the Emperor Napoleon. My notion was communicated to a friend of Mr. Charles Atwood, of the Stanhope Works, at Weardale; and I perceived soon after that gentleman had taken a patent obviously based on the idea—viz.: to combine the small ore with bituminous culm, and form thereby masses of ferruginous coke—no doubt a beneficial process, if the bitumen could be made to impart sufficient tenacity; otherwise the combination would only spoil the coke and increase dust in the furnace. However, by sufficiently widening the filling place, as well as the middle region, and adopting the style of filling described in my last paper, I have little doubt that all rich ores, whether small or massive, might be sufficiently retarded for deoxidation, without any mechanical preparations or appliances.

Your correspondent from Abersychan communicates a diminution in the quantity of lime required when it is used in the caustic state. This is what ought to be expected. The increase stated by M. Levi is one of the peculiar features in his paper which asks for further explanation. Nothing is better known than, when limestone is used, that the smaller it is broken, the less of it will go. Large masses do not readily unite into a frit with the other earths; and it is quite familiar that large quantities of limestone are never fused at all, until they sink immersed in the liquid cinder of the hearth. It is, therefore, only reasonable to conclude that fluor-lime in a much smaller quantity will suffice to neutralise the earths, and at a higher region of the furnace. In smelting calcareous ore, calcined or raw, a very small comparative proportion of the former will produce an excess of lime in the cinder. I was, therefore, by no means prepared for the statement of M. Levi, that he found a greater proportion of caustic lime necessary than that due to the limestone previously used. When the use of burnt lime is increasing, as it now appears to be, without occasoning difficulty, the question unavoidably occurs, whence the previous aversion to its use, which has prevailed decidedly as a recognised principle in furnace management? There is no doubt that practice condemned it, although theory gave no reason. To get over the discrepancy, it had even been suggested whether the retention of a portion of carbonic gas, under pressure of the materials, might not impart greater fusibility to limestone, as in the remarkable experiments of Sir James Hall: but it is more than doubtful if any pressure competent to such effect exists in an open furnace. The now acknowledged variation betwixt past and present practice, suggests the following explanation. When small hot-topped furnaces of the old fashion were in use, it is known that wet coke was frequently beneficial to damp the heat. It is, therefore, extremely probable that the limestone might absolutely be required to reduce by the heat absorbed in expelling the carbonic acid, the excess of temperature occasioned by vicious construction of the furnace. If this explanation be correct, caustic lime will be found to succeed better in new than in old-fashioned furnaces.

In the above-named number of Poor's Journal, there is a very acute analysis of my late father's views on the shrinkage and expansion of cast-iron. The points, I must admit, are very ably put, but I cannot be supposed to pass judgment on a question where my father had a far more extensive experience. One difficulty, however, can I think be accounted for, merely by attention to the facts of the case, without resorting to any mysterious electrical agencies—viz.: the floating of solid in liquid cast-iron. If this were admitted to arise from the greater density of fluid iron, the floating of *lead* certainly could not be so explained; and it is reasonable that the same cause should afford an explanation of both cases. Now, if we suppose that a fragment of cold metal chills the fluid particles in contact with it, so as to form a sort of *boat*, or at the least a certain degree of resistance to the descent, which need not be very great under the circumstances, the phenomena will be explained at once. When the solid metal gets thoroughly heated, this effect ceases, and it disappears in the liquid.

*March* 6. DAVID MUSHET.

## CHAINS FOR MINING—THE LARGE COAL FOR THE EXHIBITION.

SIR,—The following will be interesting to proprietors of mines and others in the habit of using chains. The "old chain," with which the large specimen of coal raised by Messrs Haines and Sons, and intended for the Exhibition, was manufactured by themselves, has been in work between five and six years, and weighs about 24 lbs. to the yard. It held the coal suspended at a depth of 165 yards, and that for some time with the enormous weight of 12 tons 14 cwts. upon it. The chain having been so severely tested without receiving any injury, I think, in justice to Messrs. Haines, the circumstance should be known.

*Dudley, March* 7. IRON *versus* ROUND YARN.

## "PALMAM QUI MERUIT FERAT."

SIR,—The mutations of time produce, not unfrequently, results through the agency of persons who originally buried the truths of the premises on which those results are dependant; and my constant observations on the progressive changes in the construction of railways have proved to me that the long discussions, formerly carried on in your excellent Journal, on the merits of the *round rail*, proposed some years ago by Mr. Greenhow, have not been without their natural and important consequences, though I much doubt whether engineers will admit the reality of the influence they have had on their minds. The *flat rail*, at that time in general use, has been gradually giving way to one so nearly approaching the *round*, that it only requires the use of the compasses to give it geometrical precision, and render it perfect, as regards its ultimate figure—the figure most consistent with *duration of wear* and *economy of tractive power*. To this it must come at last; and justice requires that we should "give the devil his due," candidly acknowledge the merit of the suggestion, and make the rails perfectly round at once, without going through the gradual approximations which have long pointed to that ultimate and final goal.

As the principle is now virtually and generally acknowledged, though not yet openly and candidly, as it ought to be, I shall not re-open the argument as to the superior merits of the round over every other form of rail, in which you kindly permitted me, several years ago, to take a part in your pages, but shall content myself with drawing public attention to the prevailing figure of rails recently laid down in all parts of the kingdom, in the *(surely not futile)* hope that tardy justice may yet be done to the gentleman in whom the change most undoubtedly originated.

*March* 11. G. M. T.

## HOT-AIR STOVES.

SIR,—I have much pleasure in informing Mr. Addenbrooke that my patent for the self-regulating damper has yet some years to run. I shall be happy to afford him, or any one else disposed to use it, every information as to its application, and terms for license. I have ascertained the saving in fuel is full one-third over stoves of the same build not having the self-acting damper, and amounting to between 90*l.* and 100*l.* a year for each stove. The present contrivances for calling the attention of the workman to the fire are very unsatisfactory: an iron weight is so suspended, that the index or lever worked by the expanding main causes it to fall upon a piece of plate iron, the noise of which calls the attention of the workman to his duty; and at some works he is not allowed to supply fuel till thus admonished, lest he should over-heat the blast and burn the pipes, an evil and misfortune that could not possibly occur with my self-acting damper. Mr. Addenbrooke's whistle is a most ingenious contrivance, and should in any case be retained.

The following calculation of the time occupied by the air in passing through the blast furnace is very striking and interesting, and may lead to important results:—A furnace 52 feet to the filling hole, and averaging 13 feet diameter, will have an internal capacity of about 7000 cubic feet; and presuming that 6-7ths of this space is occupied by the materials, 1-7th, or 1000 feet, only remain as interstices or spaces through which the blast must pass in its transit through the furnace. A furnace making 120 tons of iron per week will require about 4000 cubic feet of air per minute; and as the space through which this volume of air travels is only 1000 feet, it must consequently remain but *one-quarter* of a minute in the furnace; but, as the high temperature therein would expand it to double its volume, but *eight seconds* of time is all that must elapse from the entrance of the air at the tuyère and the escape of the same air at the tunnel head. I find, by a further calculation, that if four tuyères of $2\frac{3}{4}$ in. each are used, the air will pass through each of them at the astonishing velocity of 1000 *miles an hour*.

If we assume that the zone of combustion occupies 2 feet above the tuyères, the time allowed for converting this 4000 feet of air is scarcely appreciable, being but *one-fourth of a second*, and shows how rapidly the decomposition must take place; it is, therefore, evident that any preparation the air undergoes previous to its entering the furnace must very greatly facilitate the process of combustion, and we can conceive of nothing so well calculated for promoting this as heating the blast, and enabling it without further preparation to combine at once with the carbon of the fuel, and which tends so materially to reduce the region of combustion, rendering a less quantity of coke necessary for making a given quantity of iron—it being absolutely essential that the whole of the oxygen should be consumed before it can reach the *melting* region; and for this purpose a sufficient depth of clear fuel must always be provided to protect the materials above from any free and undecomposed air. This view of the case (and the increase in the heat by using hot air), will solve the mystery, which has hitherto so astonished ironmakers, of the extraordinary saving in fuel by heating the blast. Nothing tends so much to impair the quality of the iron as over-heating the blast. At some works the temperature is raised high enough to melt the lead test at 12 in. from the trial hole. The temptation for using blast of high heat is very great; the furnace not only works much pleasanter, but a proportionate amount of fuel is saved, as above explained. It is very probable that the extreme and violent heat caused by such hot blast impinging on a free burning coke, creates such a terrific heat that the earthy metals themselves are reduced into their elements, and that then the silicon, calcium, &c., as well as any other impurities contained in the ironstones, combine and form an alloy with the iron, causing it to be received with shyness and suspicion in the market. I am informed by a party, on whom I can rely, that he has used precisely the same materials (from the same mine heap) in both cases, but that the quality of the hot blast iron was inferior to the cold, and showed itself especially when working in the puddling furnace, which is a sort of purgatory, where the impurities are chiefly got rid of by their again mixing and combining with the silicate and oxide of iron formed during the process of puddling.—S. W. SMITH: *Ettingshall, near Bilston, March* 10.

## ON COBALT AND ITS PRODUCTS.

SIR,—Will you permit me, through the medium of your widely-circulated columns, to correct an accidental error of Mr. Tomlinson's, in his interesting paper "On Cobalt and its Products," as published in your Journal of last Saturday, wherein he describes it as being of *entirely foreign production*—such not being the fact. Very considerable quantities have, in the course of the last half century, been raised and sold from Dolcoath Mine, in this parish, where it was found in the state of tin white, and grey octohedral cobalt pyrites and cobalt bloom; and at one period (as also at Wheal Sparrow, in Redruth) it proved a valuable mineral to the proprietors; but, like the cobalt of Saxony in the 15th century, its worth was not known or appreciated until about the close of the last, when the refuse of the former workings were culled over, and the produce realised from 40*l.* to 50*l.* per ton. Cobalt bloom (arseniate of cobalt) has also been met with in Botallack and Polgooth Mines in this county; Willsworthy Mine, in Devonshire; in Stirlingshire and in Linlithgowshire; and cobalt ochre in Cheshire; at Howth, near Dublin, and Broughton, near Edinburgh.—MINERALOGIST: *Camborne, March* 11.

## THE SUBMARINE ELECTRIC TELEGRAPH.

SIR,—In the *Mining Journal* of the 21st Dec. last, it is stated that eight different lines of telegraphic wire were to be laid down between Dover and the French coast, which would enable a constant communication to be kept up, even though an accident should happen to one by disruption, as was the case with the first isolated wire laid down. As the matter is of great public importance, I have anxiously watched for further information on the progress of this interesting work, but have not found any further notice taken of the completing of the telegraph since the time above-mentioned. It was given out, and generally understood, that in obtaining the concession from the French Government, Messrs. Brett, of Hanover-square, had guaranteed to get the work in operation by the opening of the Great Exhibition; and I have no doubt it would be satisfactory to many of your readers, as well as myself, to be informed if the undertaking is progressing, and with what probability of an early completion. Perhaps Messrs. Brett, or some other party interested in, and acquainted with, the subject, will furnish some particulars.—T. G. W.: *Leadenhall-street, March* 11.

## MURIATIC ACID.

SIR,—Your respected and highly talented correspondent, Dr. Murray, would be conferring a great boon on society if he would furnish through your Journal some particulars connected with the adulteration of muriatic acid by arsenic; as the acid in question, he will be aware, is used to a considerable extent by many private persons in the manufacture of bread; and several diseases have been known to arise among such parties, having all the characteristics of poisoning by arsenic.—B. S.: *London, March* 15.

## IRON MANUFACTURE OF PENNSYLVANIA.

A volume, recently published by Lindsay and Blakiston, of Philadelphia, contains a large amount of information respecting the iron manufacture in the United States. The work appears to have been got up through the exertions of a committee, appointed at a general meeting of the iron manufacturers of Pennsylvania; and the large amount of tabular matter which it contains, entering into the most minute details of the trade, fully shows the importance of the interest represented. On analising this tabular matter, we find the number of blast-furnaces working with anthracite coal to be 57; capital, $3,221,000, capable of making 221,400 tons, but which actually produced, in 1847, 151,331 tons; in 1849, 109,168 tons; and 1850, estimated 81,351 tons. Bituminous coal furnaces, 7; capital, $223,000; capacity, 12,660 tons; produced, in 1847, 7800 tons; in 1849, 4900 tons; and 1850, estimated 3900 tons. Coke furnaces, 4; capital, $800,000; capacity, 12,000 tons; made, in 1847, 10,000 tons; none in 1849 or 1850. Charcoal hot-blast, 85 furnaces; capital, $3,478,500; capacity, 130,705 tons; in 1847, 94,519 tons; in 1849, 58,302 tons; 1850, estimated 42,555 tons. Charcoal cold-blast, 145 furnaces; capital, $5,170,376; capacity, 173,654 tons; made, in 1847, 125,155 tons; 1849, 80,665 tons; 1850, estimated 70,727 tons. Bloomeries, 6; capital, $28,700; capacity, 600 tons; made, in 1847, 545 tons; 1849, 335 tons; 1850, estimated 280 tons. This statement shows a total number of works for the manufacture of iron from the ore of 304, with a capital of $12,921,576, capable of producing 550,959 tons, but which produced, in 1847, only 389,350 tons; 1849, 253,370 tons; and estimated to produce, in 1850, 198,813 tons. For the conversion of pig into wrought-iron, there are 200 charcoal forges and rolling-mills, with 436 puddling-furnaces; capital, $7,580,500; capacity, 224,650 tons; made, in 1847, 203,727 tons; and in 1849, 136,853 tons. The total number of iron-works in Pennsylvania is thus 504, with a capital invested in lands, buildings, and machinery of $20,502,076, employing 30,103 men, and 13,562 horses. The number of men employed on coal-works, and by iron ore proprietors, who dig and cart it to the nearest works where they sell, are excluded from this estimate, and probably amount to 11,513 more, making a total of labourers in the iron trade of the State 41,616; and allowing five persons to each family, we have a population of 208,080, or 1·10th of the population dependent on the production of iron for their support.

There are 13 works in the State for the conversion of iron into steel, making annually about 6000 tons, and 606 nail-machines, producing 606,000 kegs, or 30,000 tons per annum. Two-thirds of the produce of the forges are sold in the form of blooms to the rolling-mills, and converted into boiler plates, horse-shoe rods, and bars, for the manufacture of scythes, axes, edge tools, cutlery, and other articles requiring a high polish. The remaining third is sold as hammered iron, in competition with Swedish and Russian.

These extracts are corroborative of the falling off in the iron trade of Pennsylvania; but on further reference, we find that the property of the blast-furnaces of the State have, in 133 instances, formed subject of sale by the sheriff, and that there has been 38 failures without sales by the sheriff. The tables are interesting, as containing every detail connected with the manufacture of iron, dimensions of furnaces, boshes, stack, &c., fuel used, description of metal produced, the ores employed, number of men, boys, and horses employed, the largest produce and actual make in 1849, with every other possible information, by which a thorough knowledge may be obtained of the working of this important interest.


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**NEWALL v. WILKINS AND WEATHERLY.—This case** was tried on the 20th and 21st of February, before the Lord Chief Justice of the Court of Queen's Bench and a Special Jury.—The action was brought for INFRINGING Mr. NEWALL'S well-known PATENT for UNTWISTED WIRE ROPES. The Plaintiff obtained a verdict on all the issues raised, which has fully confirmed his Patent right.
Since this verdict was obtained, the Master of the Rolls has granted an INJUNCTION AGAINST the DEFENDANTS, to RESTRAIN them from MAKING these ROPES, or in any way infringing the Plaintiff's Patent.
This is to CAUTION all PERSONS AGAINST MAKING UNTWISTED WIRE ROPES, and AGAINST BUYING, SELLING, or USING such ROPES, unless made by Mr. Newall, and those to whom he has granted licenses.
Patent Wire Rope Works, Gateshead, Feb. 26, 1851. 53

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These sums to be paid to the legal representatives of the holder in cases of fatal accident while travelling by railway, with proportionate compensation to himself in cases of personal injury.
ALEXANDER BEATTIE, Secretary.
3, Old Broad-street, March 1, 1851.

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COUNSEL.—Thomas Webster, Esq., 2, Pump-court, Temple.
SOLICITOR—George Fitch, Esq., 23, Southampton-street, Bloomsbury. 57
The capital of the Association to be raised by shares of £5 each.
Applications for the remaining shares to be made, accompanied with a reference, to the Secretary, at the offices of the Association, of whom also prospectuses and every information can be obtained.
The Secretary will be happy to wait upon any gentleman who may favour him with an interview, to explain the object and intentions of the Association.
The Committee are prepared to appoint Agents in the provincial towns, on application (with references) being made to the Secretary of the Association.
5, Beaufort-buildings, Strand. WILLIAM M. ROBERTSON, Secretary.

**OFFICE FOR PATENTS, 7, STAPLE INN, LONDON.—** J. MURDOCH (successor and formerly assistant to the late Mr. Hebert, author of the "Engineers' and Mechanics' Encyclopædia") informs INVENTORS and PATENTEES that, at his OFFICE, they can INSPECT a CLASSIFIED LIST OF PATENTS (THE ONLY ONE EXTANT), showing at one view all the PATENTS that have been GRANTED for any particular object, whereby they may save much trouble and expense, and procure information not otherwise obtainable.
BRITISH and FOREIGN PATENTS OBTAINED, and USEFUL and ORNAMENTAL DESIGNS REGISTERED.—SPECIFICATIONS carefully PREPARED, and REPORTS of ENROLLED SPECIFICATIONS FURNISHED.
FINISHED and WORKINGS DRAWINGS executed with accuracy and dispatch. 58
OFFICE FOR PATENTS, 7, STAPLE INN, LONDON.

**ANOTHER CURE OF A NINE YEARS' COUGH BY** Dr. LOCOCK'S PULMONIC WAFERS.—"99, High-street, Lynn.—SIR: A lady, who had a severe cough for nine years, and could get nothing to allay it, from one box of Dr. Locock's Wafers, is enabled to speak more freely, and her cough is cured. Signed, W. BARTLE."—Fictitious testimonials to medicines are so commonly published, that the proprietors of Dr. Locock's Wafers earnestly recommend the public to inquire into the truth of the testimonials to any medicine before using it; and they will feel obliged to any one who will take the trouble to investigate any published by them. This may be most readily done, as the cures are all recent, and the names and addresses are always added in full. Any one may, therefore—if at a distance, for one penny, the postage—prove the genuineness of any of the 600 cures of asthma, consumption, spitting of blood, coughs, &c., which have been effected during the last twelve months by Dr. Locock's Pulmonic Wafers. Also, Dr. Locock's Aperient and Antibilious Wafers, and Dr. Locock's Female Wafers, the latter recommended to ladies—have all a most pleasant taste. Sold at 1s. 1½d., 2s. 9d., and 11s. per box, by all respectable druggists.—Beware of counterfeits. 59

**ANGLESEA COAL COMPANY.**
Capital £20,000, in 2000 shares, of £10 each.—Deposit £1 per share.
*ON THE COST-BOOK PRINCIPLE.*
COMMITTEE OF MANAGEMENT.
H. GUEDALLA, Esq., Westbourne-place, Eaton-square.
EDWARD LORD, Esq., Portland-place, Reading. 60
JOHN OWEN, Esq., Taynton House, Newent.
(Two other members to be elected by the shareholders.)
*Bankers*—Messrs. Barnett, Hoare, and Co.
*Mining Engineer*—Thomas S. Strick, Esq., Clydach, Swansea.
*Solicitor*—N. Lindo, Esq., 17, King's Arms yard.
The COAL MINES purchased by this Company are situated in the VALE OF MALDREATH, and intersected by the line of the Chester and Holyhead Railway, and are 16 miles distant from the PORT of HOLYHEAD. There are four workable seams—the 3, 4, 6, and ½ feet; the Coal of the two former being well adapted for household and steam purposes, and that of the two latter being equal in quality to the finest Wall's-Ends of the north of England. An excellent Coke has been made from the small coal of the 6-feet seam, for which there is a constant demand by the railway companies—the chief supply being at present obtained, and, consequently, at enhanced prices, from Newcastle and Durham.
One Colliery is returning a liberal profit, and a shaft is now sinking to win all the seams in that portion of the coal-field which has already been developed.
The local markets are—Bangor, Beaumaris, Carnarvon, and their contiguous towns on or near the line of the railway, of which the annual consumption may be moderately estimated at 50,000 tons. In this populous district no other Coal can compete in quality, price, or cost of transit, with that of the Company.
The port of Dublin (at which upwards of 400,000 tons of coal are annually imported), distant 60 miles from Holyhead, offers an extensive and remunerative market for any quantity of the Company's Coal and Coke.
The reports and estimates show a net profit of 3s. per ton on the Coal, and 7s. per ton on the Coke.
The deposit of £1 per share will, it is calculated, cover the preliminary payments, and the expenditure for six months. The Cost-book principle gives to a majority of the shareholders the power of determining upon any increase of the paid-up capital.
Prospectuses, reports, and forms of application for shares, to be had of the Committee of Management, at the Temporary Offices, 17, King's Arms-yard, Moorgate-street; of the solicitor; and of Thomas Allsop, Esq., 1, Royal Exchange-buildings, London.

**APPLEDORE SILVER-LEAD AND COPPER MINE,**
SAINT IVE, CORNWALL.
Divided into 1024 shares.—Dues 1-15th.
*CONDUCTED ON THE COST-BOOK PRINCIPLE.*
COMMITTEE OF MANAGEMENT. 61
GEORGE RICH, Esq., Pimlico.
GEORGE BATTERS, Esq., St. John's Wharf, Westminster.
THOMAS TORKINGTON, Esq., Gravesend.
*Bankers*—Devon and Cornwall Bank, Liskeard; Messrs. Barclay, Bevan, & Co., London.
*Purser*—Edward Anson Crouch, of West Caradon.
*Managing Agent*—Robert Dunstan, of West Caradon.
This sett is granted by W. D. Horndon, Esq., at 1-15th dues, and extends about a square mile, and near to the most productive silver-lead mines in the county—namely, Wheal Mary Ann, Trelawny, Venton, Trehane, and other rich and dividend-paying mines. There are five parallel lodes running through this sett, and two copper lodes; the former are from 3 to 12 feet through, composed of rich gossan, mundic, candied spar, flookan, peach, prian, with spots of lead, in a light blue killas, being most congenial for silver-lead, and every indication to warrant a rich deposit of ore in depth. The metalliferous district of this sett, together with the relative position which it bears to the rich and productive silver-lead mines in this neighbourhood, is too well known to require further description than given in the following
REPORTS:
*Jan.* 18.—In accordance with your request, we yesterday carefully inspected one portion of this sett, which we found to be very extensive. We saw one strong, regular, and well-defined lode, running north and south; its width is about 2½ feet, its underlie east, and although it does not produce so much gossan, where opened, as is seen in some lodes, the stratum of ground in which it is located is very congenial for silver-lead, and the situation is extremely favourable, as the lode by its underlie falls into a large concave valley—the stratum of which it a soft clay-slate, in which experience has taught us our most productive and profitable lead mines exist. We ought not to omit to state, that we were told by others that there are two other lodes discovered in this sett, but the heavy rains which fell at the time we were there, and the late hour of the day, prevented our examing the whole sett. So, to conclude, we beg to state, that taking the sett in all its connections—first, a large strong north and south lode, which is situate in a stratum of ground very congenial to the metal sought, and after looking at what we deem the leading features of this sett, we do not hesitate to state that but that few new concerns present more of what is considered promising indications than is to be seen at Appledore, and as such we have no hesitation in stating that it holds out considerable promise of making a large and good mine. The sett is extensive, and the neighbourhood, Callington, one of mining celebrity.
JAMES OSBORNE, Wheal Venton.
HENRY HODGE, Wheal Mary Ann.
*Jan.* 27.—Having recently inspected, or rather surveyed, this sett, I beg to hand the following report thereon:—The sett, which is very extensive, is situate in the parish of St. Ive; it lies on the western side of the River Lynher, and directly south of Bicton Wood Consols, the north and south lodes in this sett, Appledore, being a continuation of the eastern lodes in Bicton, where they have been traced to some considerable distance, and present very fine appearances in this sett, and also, where opened on the backs, show themselves to be large and well-defined, being composed of gossan and quartz, and located in a beautiful soft killas, which is in every respect congenial to the produce of lead. There is also an east and west lode, the appearances of which are well worthy of attention, and from the backs lead is said to have been taken. Judging from the whole of the features of this sett, as far as a surface survey can admit of, I deem it well worthy of an effectual trial; but I should recommend, as preparatory to any permanent operations, that the lodes be opened on the backs throughout the sett, in order that their character and relative position may be more clearly ascertained, and the best spot selected for commencing effectual operations.
ROBERT DUNSTAN, West Caradon Mine.
*Jan.* 30.—In conformity with my promise to you, I yesterday inspected that portion of this sett which I had not before seen, and am happy to inform you that I saw another large north and south lode, which produces fine gossan, is situated in a stratum of soft clay-slate, and it is said intersected by a caunter lode, near the spot where I saw the principal opening; but as the pits said to contain the caunter were not cleared up, we, of course, could not state what is in them. But I can, without hesitation, say the north and south lode is one of considerable promise, being of a good size and appearance, quite in a lead district, having the Callington lead mines on one side, and the Menheniot ones on the other, and this being situated about midway between both, gives it a favourable position, and the appearance of the lodes and the general strata being the same as in those mines, I see no reason why the same causes will not produce the same effects. Fully aware that we cannot divest mining of the uncertainty which attaches to it, and equally certain that experience has taught us many things that serve for guides (though not infallible) in forming our judgments and directing our operations, and as far as I can see in it, appearances are strongly indicative of a productive mine at Appledore
JAMES OSBORN, Wheal Venton, Liskeard.
The testimony of the above experienced and well-known agents, and now managing two of the most productive and best dividend-paying mines in this locality, is sufficient guarantee for the favourable results likely to ensue.
Application for the remaining shares (two-thirds having been already apportioned) to be made to Thomas Fuller and Co., Threadneedle-street, London, where every information may be had, and plans and specimens seen.

**NEW COPPER BOTTOM MINE,**
SITUATE IN BRIDESTOWE AND SOURTON,
Divided into 5000 shares, of 25s. each.
COMMITTEE OF MANAGEMENT, pro tem.
Mr. W. P. HAYMEN. | Mr. GEORGE BATTERS.
Mr. E. R. CUNDELL. | Mr. GEORGE CARNE. 62
*Resident Agent*—Captain James Phillips.
*Purser*—Mr. N. Sims.
*Secretary*—Mr. W. L. Ternan.
OFFICES,—No. 28, THREADNEEDLE-STREET, CITY.
A meeting of the adventurers will be held as soon as the share list is complete, when the rules will be submitted, and a Committee of Management elected from the shareholders.
NEW COPPER BOTTOM.
This Mine is situate in a district which has long been regarded, by practical geologists, as presenting by far the most promising combinations for a large deposit of minerals of any untried ground either in Devon or Cornwall. It was to this particular locality that the Geological Section of the Royal British Institution, on the occasion of their holding their Session at Plymouth, and when visiting the Tors of Dartmoor, pointed as the place where rich deposits would be found. The result has proved the correctness of this view; several young mines are already at work; and the lodes opened on everywhere present more than ordinary promise.
New Copper Bottom is in the heart of this vast basin; several lodes traverse the sett, on which costean pits have been sunk, and all are worthy of a spirited trial. An adit has been already driven 110 fms., and is now 27 fms. from surface, and a level driven from it east and west on the course of one of the lodes passed through, which is being extended so as to ascertain the character of the lode and the best point to sink on it in depth.
A never-failing stream of water is at hand for working any machinery, and dressing the ores, rendering the prosecution of the mine easy and economical.
In the course of 50 fms. further driving, the adit will intersect the Great Sourton lode at a considerable depth. Fine stones of ore have been broken from it at surface, and a practical mining captain, well conversant with Devon Consols, has pronounced it a finer lode than he ever saw in Europe, and only to be compared with what he witnessed in South America.
The Mine is being worked on the economical Cost-book System; and the shares being all paid up, there is no possible liability.
Applicatiant for the unappropriated shares can be made to any of the mine sharebrokers, or to Mr. W. L. Ternan, secretary, at the offices of the company, 28, Threadneedle-street.

**STIRLING'S PATENTS FOR IMPROVEMENTS IN IRON.**—1. TOUGHENED CAST-IRON, which is double the strength of ordinary cast-iron, and only 10s. to 12s. per ton extra.
2. ANTI-LAMINATING IRON, for RAILS and TIRES, &c., at an extra price of from 7s. 6d. to 10s. per ton. Also IMPROVEMENTS in the MAKING of WROUGHT-IRON—saving one process to the manufacturer.
The following Iron Manufacturers are duly LICENSED to MAKE the IRON:—
Messrs. BAIRDS' ..... Gartsherrie, Glasgow.
The CLYDE IRON COMPANY ..... ditto ditto
The FIFTH IRON COMPANY ..... ditto ditto
The HERSLEY COMPANY ..... Tipton, Staffordshire. 63
Messrs. LLOYDS, FOSTER, & CO. ..... Wednesbury.
Mr. JOHN WILSON ..... Dundyvan, Glasgow.
AGENTS.
Messrs. GARDEN and MACANDREW, 34, Dowgate-hill, London.
Messrs. W. & J. H. JOHNSON, 166, Buchanan-street, Glasgow, and 20, St. Andrew's-square, Edinburgh.
Further particulars may be obtained on application to the agents; or to Mr. JEE, civil engineer, No. 6, John-street, Adelphi, London.

**GREAT COWARCH SILVER-LEAD MINING COMPANY** —situate in the county of MERIONETH.—12,000 parts, or shares, of £2 each.
Certificates will be issued upon the "Cost-book System," upon which principle the mine will be strictly worked. COMMITTEE OF MANAGEMENT.
JOHN PENRY WILLIAMS, Esq., Abercamlais, Brecon.
JOHN SUNLEY, Esq., 5, George-yard, Lombard-street. 64
ALEX. H. LEYBOURNE POPHAM, Esq., Purley-park, Reading, Berks.
CHARLES BURLS, jun., Esq., 11, Chatham-place, Blackfriars.
CHARLES STEWART, Esq., 28, Regent-street, and Sillwood-place, Brighton.
*Bankers*—London Joint-Stock Bank.
*Solicitors*—Messrs. Fry and Holt. Walbrook-house.
*Superintending Engineer*—Adam Murray, jun., Esq.
*Secretary and Purser*—James Westran Sherman, Esq.
TEMPORARY OFFICES,—No. 26, BUCKLERSBURY, LONDON.
This is a very valuable and extensive sett, containing many lodes, five of which have been cut, and about 500 tons of silver-lead ore raised therefrom. Upwards of 200 tons are now on the bank ready for dressing and sending to market.
The capital having been purposely made ample for the fullest development of the mine, without abstracting from the current receipts—such receipts, subject to the ordinary cost of raising the ore, will be immediately applicable to dividends.
An analysis has been made by Dr. Normandy from different samples of the ore raised, giving a result of from 30 to 82 ounces of silver per ton of lead, and from 14 to 17 cwts. of lead per ton of ore.
An abundant and available supply of water renders unnecessary the use of steam-power, whereby a large saving of expenditure is effected.
The operations of this Company will be carried on upon the Cost-book Principle, which expressly limits the liabilities of adventurers, and enables them, at any time, to determine their responsibility.
Applications for shares may be made to the Secretary, at the offices of the Company, 26, Bucklersbury; to Messrs. Field, Son, and Wood, Warnford-court, Throgmorton-street, London; to Messrs. S. R. and R. Healey, Castle-street, Liverpool; Messrs. Johnston, Bradley, and Walker, St. Ann's Churchyard, Manchester; and Mr. L. Weatherburn, jun., Leeds,—from whom prospectuses, plans, and reports upon the mine, and forms of applications for shares, with every other information, may be obtained.

**GREAT COWARCH SILVER-LEAD MINING COMPANY** —NO APPLICATIONS for SHARES in this Company WILL BE RECEIVED after THIS DAY (Saturday, the 15th inst.). The Committee of Management will immediately proceed to the allotment of shares. By order of the Committee, 65
JAMES WESTRAN SHERMAN, Secretary.
No. 26, Bucklersbury, London, March 14, 1851.

**SAINT ENODER CONSOLIDATED COPPER AND LEAD** MINING COMPANY,—SAINT ENODER, CORNWALL.
Capital £12,000, in shares of £1 each, all paid up.—No further call or liability.
*ON THE COST-BOOK PRINCIPLE.*
COMMITTEE OF MANAGEMENT.
EDWIN BECKET SMALL, Esq., St. Alban's-terrace, Kennington, and Normanton, near Nottingham.
JAMES BAGNALL HOBBS, Esq., North-hill, Highgate.
ISAAC ASHMORE, Esq., Leamington Spa. 66
EDWIN BALL, Esq., Half Moon-street, Piccadilly.
(With power to add.)
*Bankers*—Sir John William Lubbock, Bart., Forster, and Co., Mansion-house-street.
*Solicitor*—Peniston Grosvenor Greville, Esq., 42, Lombard-street.
*Secretary*—Mr. William James Payne.
OFFICES,—4, CHARLOTTE-ROW, MANSION-HOUSE.
These celebrated mines include the Wheal Wellington and Wheal Cocke, which were worked by Cornish shareholders in 1821 to the year 1825, when, like many other mines of the most valuable character, they were suspended in consequence of the then very low standard of copper, and the depression generally prevailing in all commercial and speculative affairs. Sufficient capital could not be raised to purchase adequate machinery to prosecute the undertaking, but in no way affecting their credit or the high estimation in which they were for a long period held by the mining interest.
"The Chyprase Mine adjoins the above setts—the shares, on which £3 has been paid, find ready buyers in the market from £25 to £30 per share, and cannot be obtained at the latter price. The last report states the mine to look more promising than ever."
The outlay of former shareholders has been very considerable in driving adit and other levels, sinking engine and other shafts to the depth of 40 fathoms from the surface; and during its working considerable quantities of copper and lead ores were raised, of a quality to command a very high price in the market—the highest price of copper ore at that time being £8 12s. 6d., the lowest £4; best quality of lead, £12 2s. 6d., the lowest price £11 15s. Ores raised from January, 1823, to 6th July, 1824, were upwards of £4000; and it is only fair to calculate from these returns, which paid the shareholders 50 per cent. on their outlay, that had the undertaking been further and efficiently developed, a very large per centage would have been realised.
Any future company proceeding with the works will necessarily derive the advantage of the shafts sunk and levels driven by the former shareholders—considerable gain as regards both time and money; and such was the opinion of the former company that they would be again resumed, that they left undisturbed all the pumps, rods, stays, ladders, miners' tools, cisterns, &c.
The course of ore already discovered, on re-opening these works, may be resumed as soon as the water is drained off, which can be accomplished within a very limited period after the erection of a steam-engine.
It is proposed to raise the required capital of £12,000 in shares of £1 each, to be paid on allotment. The lease of the mines, for 21 years, at 1-18th dues, will be transferred to the company, clear of all rent and charges.
Further particulars may be obtained of, and application for shares may be made to, J. J. Berchel, Esq., 5, Pall-mall, Manchester; Andrew Mercer, Esq., 144, Queen-street, Glasgow; Harry Hughlings, Esq., Halifax; Peniston Grosvenor Greville, Esq., No. 42, Lombard-street; and to the Secretary, at the offices of the Company, 4, Charlotte-row, Mansion-house, London.
REPORT
*Of* WHEAL COCKE MINE, *in the parish of St. Enoder, Cornwall.*
In compliance with your request, I beg to send you a report of the above-named mine. This mine ceased to work about 26 years since. During its working a 24-inch cylinder steam-engine was employed, which drained the water to a depth of 40 fathoms, and during its working considerable quantities of copper and lead ores were raised, of a quality to command a high price in the market. There are four lodes in the sett discovered—one running north and south, and the others east and west; on the north and south one but little was done, but on the east and west a large quantity of superior copper and lead ores was raised; the ore appeared to be increasing in depth, but from the want of sufficient steam-power, and the inability of some of the shareholders to erect such machinery, it was suspended.
It is my opinion, that if a powerful steam-engine was erected (say 50 inches), with other necessary machinery, it would be a permanent and profitable mine indeed: the prospects fully justify such outlay.
The north and south lode forms a junction with the other lodes in the sett, where I would particularly recommend a special trial to be made, having no doubt as to the successful result. I draw my conclusion from the circumstance of my having personally inspected the lodes prior to its suspension, and broke from the lode, at the depth of 40 fathoms, some fine stones of copper ore.
THOS. SYMONDS.
WHEAL WELLINGTON.
This mine adjoins Wheal Cocke on the south and west, and can be best worked in conjunction with Wheal Cocke; the same machinery will, to a great extent, command them both: two of the lodes in Wheal Cocke pass through this sett. Wheal Wellington was worked by a small water-wheel to the depth of 10 fathoms, at which depth the east and west lode was cut, and raised some fine stones of copper ore, but an ineffectual trial only was made on the lode, as in cutting it the water so much increased, that the water-wheel was inadequate to the task of drawing the water—consequently, but little can be known of this, except that some fine stones of copper was raised; this, together with a beautiful gossan at the surface, and a fine stratum congenial to copper, are indications which should not be lost sight of, and are in themselves sufficient to warrant a more effectual outlay.
THOS. SYMONDS, Indian Queens, St. Columb.
TO THE COMMITTEE OF MANAGEMENT OF THE
"SAINT ENODER CONSOLIDATED COPPER AND LEAD MINING COMPANY."
GENTLEMEN,—I hereby request you to allot me shares in the above Company, which I agree to accept, and to pay the amount of £1 per share when called upon.
Name in full .....
Address .....
Occupation .....
Dated this day of 1851. Reference .....

**WHEAL ENYS TIN MINE, WENDRON, CORNWALL.** —Held under lease from John S. Enys, Esq., of Enys, for 21 years, nearly 20 of which are unexpired, at 1-18th dues; to be reduced to 1-20th as soon as an engine shall be erected.—Divided in 1070 shares, at 30s. per share, free of all liabilities to the present time. Conducted strictly on the "Cost-book System," under the superintendence of a Committee, to be appointed at the first general meeting, which will be convened immediately after the allotment.
*Purser*—Mr. JOHN TRETHOWAN, Little Falmouth. 67
*Bankers*—Messrs. TWEEDY & CO., Falmouth.
The FINAL ALLOTMENT will be made on THURSDAY, the 20th day of March.
Applications for not less than Five of the remaining shares (about 150) may be made to the Purser, at Little Falmouth; Messrs. T. Leeds and Son, St. Anne's, Manchester; Mr. W. Fenton, 5, White Hart-court, Lombard-street, London; Mr. J. Davies, 38, Tower-buildings, Liverpool; Messrs. T. W. Flint and Co., Hull; Mr. T. Lewis, 17, New Meeting-street, Birmingham; or to Mr. Williams, accountant and mine broker, Green-bank-terrace, Falmouth,—from either of whom prospectuses and every information obtained.

**BRITISH MUTUAL GOLD MINING COMPANY.**
Capital £50,000, in 50,000 shares, of £1 each.
Shares to be paid on allotment.—No Calls nor other responsibility whatever, this being specially guaranteed by the Deed of Settlement.
The Right Honourable LORD ERSKINE, Chairman.
LOUIS DE MASSIAC, Esq., Deputy-Chairman. 68
*Bankers*—Messrs. Ransom and Co.
THIS COMPANY IS ESTABLISHED FOR WORKING MINES IN CALIFORNIA.
The Directors have concluded an agreement with David Hoffman, Esq., for a Lease of a most valuable Mining District on the Mariposa River, belonging to the Hon. Colonel Frémont, and they are now making arrangements for sending out their first expedition. The mines are proved to be exceedingly rich, and stated to be inexhaustible: the company, therefore, feel assured of unprecedented success.
Applications for shares may be made at the offices of the Company, 80, Great George-street, Westminster, where every information may be obtained and prospectuses had.
JOS. DUNNING, Managing Director.

OFFICIAL CATALOGUE OFFICE, 29, NEW BRIDGE-STREET, BLACKFRIARS, AND AT THE EXHIBITION BUILDING, HYDE PARK.

**NOTICE.—ADVERTISEMENTS** intended for the FIRST EDITION of a Quarter of a Million of the SMALL CATALOGUE, as also for the FIRST EDITIONS of the ILLUSTRATED, the GERMAN, and FRENCH CATALOGUES, should be sent in immediately, in order that they may be classified and printed therewith:
1. Insurance Offices.
2. Literature and the Fine Arts. 69
3. New Inventions.
4. Agricultural Machines and Implements.
5. House Agency—Hotels, Taverns, and Lodging-houses.
6. Places of Public Amusement.
7. Railway and Steam-boat Arrangements.
8. Classification of Trades and Miscellaneous.
SPICER BROTHERS, Wholesale Stationers, } Joint-Contractors to the
CLOWES & SONS, Printers, } Royal Commission.

## PRICES OF MINING SHARES.

It being difficult to obtain a correct knowledge of all the mines in our list, we trust that agents, and others interested, will assist us, by forwarding any additions, or corrections, with which they may be acquainted—our object being to present it as accurate as possible. We have also added a column to note the actual business transacted; but which, without the constant assistance of brokers and agents, cannot become so complete as we could wish The desirability of such a record is generally admitted, and we invite the co-operation of all parties concerned, in rendering it perfect.

| *Shares.* | DEVON DISTRICT. | *Paid.* | *Last Price.* | *Present Price.* |
|---|---|---|---|---|
| 3000 | Aylesborough (tin), Sheepstor | 1¼ | 1¼ | |
| 4000 | Bedford United (copper), Tavistock | 2⅝ | 7¼ 7⅝ 8¼ | 8¼ 8⅝ |
| 1280 | Birch Tor and Vitifer (tin), Dartmoor | 10½ | 4 | |
| 1024 | Bottle Hill (copper) Plympton | 1 | 1 1½ | |
| 1024 | Borringdon Park (silver-lead), Plympton | ⅛ | 5 | |
| 4060 | Devon and Courtenay Consols (copper) | 1½ | ¾ 1 | 1 1⅛ 1⅛ 1⅛ |
| 1024 | Devon Great Consols (copper), Tavistock | 1 | 280 | |
| 768 | Devon Great Tincroft, North Bovey | ¼ | 6 | |
| 250 | East Birch Tor (tin), North Bovey | 3 | 3 | |
| 2048 | East Crowndale (tin), Tavistock | 7⅛ | 3 | |
| 4000 | East Gunnis Lake Junction (copper) | ¼ | 1 | 1¼ |
| 9000 | East Tamar Consols (silver-lead) | 1⅛ | 1½ | |
| 2048 | East Wheal George (cop.), Walkhampton | 1 | 10 | |
| 512 | East Wheal Josiah (copper), Tavistock | 1⅛ | 1½ | 1⅛ |
| 4000 | East Wheal Russell (copper), Tavistock | ¼ | 5 5⅛ | 5 5⅛ |
| 1024 | Exmoor Eliza (copper), South Molton | 3⅛ | ⅜ 1⅛ 2⅛ 3 | |
| 1500 | Hennock (silver-lead), Hennock | 2½ | 2½ 3½ | |
| 1024 | Kingsett and Bedford (lead and copper) | 3⅛ | 2⅛ | |
| 1742 | Lamheroos Wheal Maria (copper & tin) | 11⅛ | 10 | 10 |
| 2000 | Molland | — | 3 3⅛ | |
| 6000 | Nap Down (silver-lead), Combmartin | 1 | 1⅛ | |
| 2048 | New East Crowndale (copper and tin) | 1 | 1 | |
| 1024 | North Wh. Robert (copper), Walkhampton | 2 | 2⅛ | 1⅛ 2⅛ |
| 512 | Old Brimpts (tin), Lydford, near Ashburton | ⅛ | 12 | |
| 1000 | Peter Tavy and Mary Tavy (copper) | 2⅛ | 5 6 7 | |
| 512 | Plymouth Wheal Yeoland (tin), Plymouth | 6⅛ | 6 | |
| 2048 | Runnaford Coombe (tin) | 3 | 3⅛ 4 | |
| 256 | South Friendship Wh. Ann (copper & tin) | 30 | 28 30 | |
| 256 | South Molton (lead) | 12⅛ | 8 | |
| 1024 | South Plain Wood (copper), Ashburton | 3⅛ | 7 | |
| 9000 | South Tamar (silver-lead), Beer Ferris | 1 | 2⅛ 2⅛ 2⅛ | 2 2⅛ |
| 9600 | Tamar Consols (silver-lead), Beeralston | 4 | 5⅛ 5⅛ | 5⅛ |
| 687 | Tavy Consols (copper), near Tavistock | 8 | 3 | |
| 1024 | United Mines (copper and tin), Tavistock | 10 | 10 | |
| 1024 | West Downs (copper and tin), Whitchurch | 2 | 1⅛ | |
| 1024 | West Wheal Friendship (copper) | 3 | 3⅛ | 4 |
| 4000 | West Wheal Russell | ⅛ | ⅜ | ⅜ |
| 1070 | Wheal Adams (lead), Christow, Exeter | 13⅛ | 16 | |
| 1024 | Wheal Carpenter (tin & cop.) S. Sydenham | 1 | 2 | |
| 1024 | Wheal Crebor (copper), Tavistock | 2⅛ | 6 6⅛ 6⅝ | 6⅛ 6⅜ |
| 1024 | Wheal Emily (antimony and lead) | 3 | 5 6 | |
| 1024 | Wheal Fortescue (copper), Tavistock | 4⅛ | 3 | 1⅛ |
| 764 | Wheal Franco (copper), near Tavistock | 13⅛ | 12 13 | |
| 126 | Wheal Friendship (copper) | 120 | 120 | |
| 1024 | Wheal Hamlyn, near Oakhampton | ⅛ | 1 | 1⅛ |
| 2048 | Wheal Harris (lead), near Tavistock | ⅜ | 1 | |
| 2000 | Wheal Langmaid (lead) | ⅛ | 1⅛ | 2 |
| 1024 | Wheal Mary Ann (copper), Bridestow | — | 1⅛ | 2 |
| 210 | Wheal Prospect | 4 | 7 | |
| 5000 | Wheal Providence, South Sydenham | ⅛ | 2⅛ 4 | |
| 4000 | Wheal Russell (copper), Tavistock | 1⅛ | 1⅛ 1⅜ | 1⅛ 1⅛ |
| | EAST CORNWALL DISTRICT. | | | |
| 1024 | Appledore (silver-lead and cop.) St. Ives | 1⅛ | 2⅛ | 2 2⅛ |
| 3450 | Bawden (silver-lead) | ⅛ | ⅛ ⅜ | |
| 256 | Berrlow (copper), Liskeard | 2⅛ | 5 | |
| 1024 | Bodmin Consols (lead), Wadebridge | 4 | 5 | 7 |
| 5000 | Bodmin Moor Consols (tin and copper) | 1 | 4⅛ 4⅜ | |
| 1024 | Bodmin Wheal Mary (copper) | 5 | 6⅛ | 10 11 |
| 107 | Budnick Consols (tin), Perranzabuloe | 52⅛ | 9 | |
| 812 | Butterdon (lead), Menheniott | 2⅛ | 6 | 5⅛ 5⅜ |
| 1000 | Callington (lead and copper), Callington | 28 | 7⅛ 8⅛ | |
| 4000 | Calstock United (copper) | 5 | 5 | 5 |
| 1000 | Camborne Consols (copper), Camborne | 7 | ⅛ | |
| 1168 | Caradon Great Cons. (cop.), Linkinhorne | 7 | 3 | |
| 1536 | Caradon Vale (copper and lead), St. Ive | 2⅛ | 1⅜ | |
| 1000 | Carn Brea (copper and tin), Illogan | 15 | 125 127 | 125 127⅛ |
| 3000 | Carthew Consols (cop. & lead), Wadebridge | 4 | 7 | |
| 1056 | Carvannall (copper), Gwennap | 2⅜ | 5⅛ | |
| 256 | Chyprase, St. Enoder, Cornwall | 3 | 25 30 | |
| 500 | Combiawn (lead), Callington | 8 | — | |
| 128 | Comfort (copper), Gwennap | 65 | 70 | 67⅛ |
| 256 | Condurrow (copper and tin), Camborne | 20 | 105 110 | 110 |
| 2000 | Coombe Valley Quarry (slate), St. Ginnis | 3 | 3 | |
| 1000 | Copper Bottom (copper), Crowan | 7 | 6⅛ | |
| 211 | Craddock Moor (copper), St. Cleer | 28⅛ | 7 | |
| 256 | Crane and Bejawsa (copper), Camborne | 41 | 25 | 30 |
| 180 | Dolcoath (copper and tin), Camborne | 252 | 18 20 | |
| 2560 | Drake Walls (tin and copper), Calstock | 6⅛ | 3⅛ 4 | 4 |
| 1536 | Duke of Cornwall (copper), St. Winnon | 1 | 2 | |
| 1024 | East Buller (copper), near Redruth | 3 | 6 | |
| 128 | East Carn Brea (copper), Redruth | 4 | 3 | |
| 1024 | East Polgooth (tin) | 6 | 7⅛ | 5 |
| 128 | East Pool (tin and copper), Pool, Illogan | 24⅛ | 170 180 | 150 160 |
| 256 | East Seton and Wheal Maude, Redruth | 4 | 4⅛ | |
| 1024 | East Sharp Tor (copper) | 5 | 8 | |
| 256 | East Tolgus (copper), Redruth | 4 | 20 | |
| 1000 | East Trescoll (tin), Lanivet, near Bodmin | 1 | 2⅛ | |
| 256 | East Tywarnhayle (copper), St. Agnes | 11 | 12 | |
| 94 | East Wheal Crofty (copper), Illogan | 125 | 150 160 | |
| 256 | East Wheal Frances (copper), Illogan | 2⅛ | 3 | |
| 512 | East Wheal Leisure (copper) | 8 | 17 | 15 17⅛ |
| 256 | East Wheal Rashleigh, Lonreath | — | 10 | |
| 128 | East Wheal Rose (silver-lead), Newlyn | 50 | 560 | |
| 494 | Fowey Consols (copper), Tywardreath | 40 | 30 | |
| 2560 | Garras (silver-lead), near Truro | 5⅛ | 4⅛ | |
| 256 | Gonamena (copper), St. Cleer | 46 | 15 | |
| 243 | Grambler and St. Aubyn (copper) | 80 | 50 | 45 |
| 96 | Great Consols (copper), Gwennap | 1000 | 250 | |
| 1024 | Great Sheba Consols (tin and copper) | 5 | 13 | 9 |
| 5000 | Great Wheal Martha (cop.), Stoke Clims. | — | 1 | |
| 3072 | Great Wheal Mitchell Cons. (cop.), Lanivet | 3 | 5 | |
| 1026 | Gustavus Mines (copper), Camborne | 6⅛ | 6 | 6⅛ |
| 512 | Gt.Wh.Rough Tor Con. (cop.), Camelford | 29 | 20 | |
| 6000 | Growa Slate Company, Camelford | 5 | 5 | |
| 1024 | Hawkmoor (cop.), Calstock, Gunnis Lake | 5 | 8 | |
| 6000 | Helgnston Down Con. (copper), Calstock | 2⅛ | 4 | |
| 512 | Herodsfoot (lead), near Liskeard | 16 | 13 | 12⅛ 13 |
| 1000 | Holmbush (lead and copper), Callington | 24 | 23⅛ | 23⅛ |
| 252 | Lanarth Consols (copper), Gwennap | 10 | 8 | |
| 6000 | Marke Valley (copper), Caradon | 10 | 3⅛ | |
| 256 | Mineral Court (tin), near St. Austell | 25⅛ | 50 | |
| 1024 | Moditonham & Marrabro' (copper & lead) | 1⅛ | 2⅛ 3 | |
| 320 | Nansegollan (tin and copper), Camborne | 3 | 3 | |
| 1024 | North Buller (copper), Redruth | 4 | 12⅛ 15 | |
| 256 | North Fowey Consols | — | 25 | |
| 100 | North Pool (copper and tin), Pool | 45 | 440 | |
| 140 | North Roskear (copper), Camborne | 10 | 160 | |
| 256 | North Tolgus (copper), Redruth | 9 | 18⅛ | 21 |
| 256 | North Trefusis (tin and copper), Redruth | 1 | 1 | |
| 6000 | North Wheal Basset (copper and tin) | 2 | 10 | 10 |
| 1200 | North Wh. Buller, or Gt. South Tolgus | 5 | — | |
| 262 | North Wheal Leisure, Perranzabuloe | 1⅛ | 1⅞ | |
| 128 | Par Consols (copper), St. Blazey | 55⅝ | 650 | |
| 1026 | Pendarves Consols (copper), Camborne | 3⅛ | 6 6⅛ | 6⅛ |
| 1000 | Pendarves and St. Aubyn (tin and copper) | 5 | 10 12 | |
| 406 | Penhauger | 1 | 6 | |
| 2048 | Pentire Glaze(silver-lead), St. Minver | 5⅛ | 8 | |
| 1160 | Perran St. George (copper and tin) | 21⅛ | 45 | |
| 200 | Phœnix (copper and tin), Linkinghorne | — | 240 | |
| 1000 | Polberro (tin), St. Agnes | 15 | — | |
| 2000 | Polgear (copper and tin) | 1 | 3 | |
| 5000 | Roche Rock (tin), Roche, near St. Austell | 1 | 1 | |
| 5000 | Rocks and Treverbyn (tin), St. Austell | 4⅛ | 5 5⅛ | |
| 10000 | Silver Valley & Wh. Brothers (cop. & tin) | 1 | 1⅛ | |
| 256 | South Caradon (copper), St. Cleer | 30 | 120 | 110 115 |
| 2000 | South Carn Brea (copper), Illogan | 10 | 8⅛ | 8 |
| 1100 | South Dolcoath (copper), Illogan | 6 | 6 | |
| 256 | South Tolgus (copper), Redruth | 16 | 145 50 52⅛ | |
| 256 | South Trelawny (lead), near Liskeard | 31 | 2 | 1⅛ |
| 256 | South Wheal Basset (copper), Illogan | 10⅛ | 370 | |
| 248 | South Wheal Frances (copper), Illogan | 80 | 305 | 290 300 |
| 256 | South Wheal Josiah (copper), Calstock | 2 | 3⅛ | |
| 999 | St. Minver Consols (silver-lead) | 1 | 6 | |
| 1000 | Stray Park and Camborne Vean (copper) | 15 | 14⅛ 15⅛ | 15 17⅛ |
| 6000 | Tincroft (copper and tin), near Pool | 7 | 8⅛ | 6⅛ 7 |
| 128 | Tokenbury (copper), St. Ive, Liskeard | 8⅛ | 8 | 10 |
| 1200 | Tolcarne (tin and copper), Camborne | 8 | 5 | |
| 2048 | Trebell Consols (tin and copper), Llanivet | 1⅛ | 1⅛ | |
| 512 | Treburget United (lead), St. Teath | 1 | — | |
| 600 | Tregardock | 1 | 5 | |
| 256 | Tregorden (silver-lead) Wadebridge | 10 | 7 | |
| 256 | Trehane (silver-lead), Menheniot | 1⅛ | 13 15 | 15 |
| 5000 | Treleigh Consols (copper), Redruth | 6 | 2⅛ 3⅛ | |
| 2000 | Trenance (copper), Helston | 6 | — | |
| 96 | Treavean (copper), Gwennap | 20 | 235 | 210 215 |
| 120 | Trethellan (copper), Gwennap | 5 | 20 21 | |
| 512 | Trethevy (copper), St. Cleer | 7 | 6⅛ | |
| 512 | Treville (lead), Lewanick | 2⅛ | 9 | |
| 120 | Treviskey and Barrier (copper) | 130 | 250 55 60 | 235 45 50 |
| 500 | Tywarnhayle (cop.), Illogan & St. Agnes | 70 | 44 | 30 32⅛ 35 |
| 200 | United Mines (copper), Gwennap | 300 | 110 | |
| 5000 | Warleggan Consols (copper) | ⅜ | ⅜ | ⅜ 1 1⅛ |
| 500 | West Basset | — | 9 | |
| 128 | West Buller (copper), Redruth | 10 | 900 | |
| 256 | West Caradon (copper), Liskeard | 20 | 112 112⅛ | 110 112⅛ |
| 812 | West Fowey Con. (tin & cop.), St. Blazey | 40 | 60 | |
| 1024 | West Par Consols (copper), St. Blazey | 10 | 11 | |
| 1024 | West Phœnix, Linkinghorne | 3 | 4 | |
| 2500 | West Polgooth (tin), St. Ewe & St. Mewan | 5 | 3 | |
| 300 | West Seton (copper), Camborne | 67 | 150 | 123 |
| 2560 | West Shepherd (silver-lead and copper) | 2⅛ | 2 | |
| 940 | West Tolgus (copper), Illogan | 13⅛ | 4 | 5 |

| *Shares.* | | *Paid.* | *Last Price.* | *Present Price.* |
|---|---|---|---|---|
| 120 | West Trethellan (copper), Gwennap | 15 | 20 | |
| 512 | West Wheal Frances (copper), Illogan | 7 | 23⅛ 25 | 22⅛ |
| 3725 | West Wheal Jewel (tin and copper) | 12 | 2 | |
| 2048 | West Wheal Rose (lead), Newlyn | 2⅛ | 3 | |
| 500 | West Wheal Towan (copper), Illogan | 15 | 12⅛ 15 | 15 17⅛ |
| 1228 | Wheal Arthur (copper), Calstock | 1¼ | 4 5 | |
| 300 | Wheal Arthur (lead), near East Wh. Rose | 17 | 49 | |
| 232⅛ | Wheal Calstock (copper), Calstock | 9 | 9 | |
| 1000 | Wheal Agar (copper), Illogan | 6 | 5⅛ 5⅝ | |
| 500 | Wheal Daniell (copper), Chacewater | 10 | 10 | |
| 3000 | Wheal Dora (tin and copper), St. Cleer | 3 | 4⅛ 4⅛ | |
| 182 | Wheal Elizabeth (copper), Redruth | 19 | 25 | |
| 182 | Wheal Ennis (lead), St. Erme | 12 | 20 | |
| 100 | Wheal Friendly (tin), St. Agnes | 70 | 65 | |
| 4000 | Wheal Golden (lead), Perranzabuloe | 2 | 5 6 | 5⅛ 6⅛ |
| 2560 | Wheal Harriet (copper), Camborne | 1 | 1⅛ 2 | 1⅛ 1⅜ |
| 216 | Wheal Henry (copper), Kea, near Truro | 25 | 8 | |
| 256 | Wheal Kingston (copper and silver-lead) | ⅛ | 1 | |
| 6000 | Wheal Langford (copper and silver-lead) | ⅛ | 3 | |
| 1024 | Wheal May (silver-lead and copper) | 2 | 2⅛ | 2⅛ |
| 990 | Wheal Mary (copper), Redruth | 15⅛ | 7⅛ | |
| 512 | Wheal Mary Ann (lead), Menheniot | 5 | 62⅛ 63⅛ | 60 1⅛ 2⅛ 64 |
| 3000 | Wheal Penhale (lead and copper) | 2⅜ | 5⅛ | |
| 128 | Wheal Plenty (copper), Redruth | 19 | 38 39 | |
| 256 | Wheal Prudence (copper), St. Agnes | 2 | 5 | 5⅛ |
| 512 | Wheal Selena (copper), Redruth | 1 | 1⅛ | |
| 198 | Wheal Seton (tin and copper), Camborne | 107 | 225 230 | |
| 512 | Wheal Sophia (silver-lead), Lezant | 7 | 7 | |
| 512 | Wheal Spry (copper and lead) St. Columb | ⅛ | 1 | |
| — | Wheal Tom (tin & copper), Stoke Clims. | 5 | 7⅛ 7⅛ | |
| 512 | Wheal Trefusis (copper), Gwennap | 6⅛ | 16 | 12 |
| 1024 | Wheal Tremar (copper), St. Cleer | 1 | 1 | 1 |
| 3300 | Wheal Trescoll (tin), Lanivet, Bodmin | 2⅜ | 2 | |
| 520 | Wheal Trelawny (silver-lead), Liskeard | 3⅛ | 54 56 | 50 52⅛ 54⅛ |
| 256 | Wheal Tremaine (copper), St. Ervan | 11 | 2⅛ | |
| 267 | Wheal Tryphena (tin and copper) | 40 | 38 | |
| 126 | Wheal Union (copper), Redruth | 40 | 45 50 | |
| 1024 | Wheal Uny (tin and copper) | 2 | 5⅛ | |
| 1024 | Wheal Venton (silver-lead), Liskeard | 3⅛ | 6⅛ 7⅛ | 7 7⅛ |
| 910 | Wheal Vincent (tin), Alternun | 7⅛ | 6⅛ | |
| 128 | Wheal Violet (tin and cop.), St. Stephens | 5 | 3 | |
| 128 | Wheal Vlow, Perranzabuloe | 3 | 5 | |
| 184 | Wheal Vyvyan (cop. & tin), Constantine | 60 | 60 | |
| | WEST CORNWALL DISTRICT. | | | |
| 5120 | Alfred Consols (copper), Hayle | 3 | 15⅛ 16 | 15⅛ 15⅝ 16 |
| 1624 | Balleswidden (tin), St. Just | 9 | 10⅛ | 9 10 |
| 940 | Balnoon Consols (tin), Uny Lelant | — | 10⅛ | 4⅛ 5 |
| 40 | Bolowall and Nanpean (tin), St. Just | — | 16 | |
| 128 | Boscean (tin), St. Just | 10 | 18 20 | |
| 600 | Bosorn (tin), St. Just | 5 | 1⅜ | |
| 100 | Botallack (tin and copper), St. Just | 182 | 220 | |
| 1000 | Carbona (tin and copper), Crowan | 5 | 12 | |
| 2510 | Cook's Kitchen (copper and tin), Illogan | 15⅛ | 9⅛ 10⅛ | 8⅛ |
| 1024 | East Balleswidden (tin), Sancreed | 1⅛ | 2⅛ | |
| 256 | East Godolphin (copper), Crowan | 17⅛ | 21 | |
| 1000 | East Wheal Reeth | ⅛ | 1⅛ 2 | |
| 1024 | East Wheal Margaret (tin and copper) | ⅛ | 1⅛ 1⅛ | |
| 2500 | Georgia Consols (tin), St. Ive's | 2⅛ | 7 7⅛ | |
| 1024 | Great Wheal Alfred, St. Erth and Phillack | 2 | 3⅛ | 3 |
| 512 | Great Wheal Baddern (tin and silver-lead) | 20 | 85 | |
| 512 | Hawke's Point (copper), Uny Lelant | 7 | 4 | 3⅛ |
| 1024 | La Min (Gwinear), tin and copper | 2⅛ | 5 | |
| 256 | Lelant Consols (tin), Uny Lelant | 57 | 20 | 22⅛ |
| 160 | Levant (copper and tin), St. Just | — | 170 | 175 |
| 1000 | Lewis (tin and copper), St. Erth | 17 | 18⅛ 19 | 19 |
| 1024 | Mill Pool (tin and copper), St. Hilary | 1 | 7 | 5 |
| 2000 | North Levant (tin and coppor), St. Just | 5 | 3 | |
| 512 | North Wheal Vor (tin), Breage, Helston | — | 5 | |
| 1024 | Penzance Consols (tin), Sancreed | 1⅛ | 1⅛ 2 | 2 3 3⅛ |
| 1024 | Praed Consols, Towednack | 1 | 1 | |
| 560 | Providence Mines (tin), Uny Lelant | 20⅛ | 30 | |
| 1024 | Sidney Godolphin (copper), Breage | 2⅛ | 2⅛ | |
| 300 | South Speed (copper and tin), Uny Lelant | 15 | 30 | |
| 1024 | Spearne Consols (tin), St. Just | 2⅛ | 9 | 10⅛ 11 |
| 1024 | St. Aubyn and Grylls (copper and tin) | 2⅛ | 5⅛ 5⅝ | 4⅛ |
| 94 | St. Ives Consols (tin), St. Ive's | 80 | 80 | |
| 280 | Spearne Moor (copper), St. Just | 30 | 40 | |
| 1024 | Trannack and Bosence, St. Erth | 1 | 5 5⅛ 6 | 10 |
| 1024 | Trannack United Mines (tin and copper) | 1⅛ | 5⅛ 6 | |
| 600 | Trelyon Consols (tin), St. Ive's | 4 | 6⅛ 7 | 8 |
| 100 | Trumpet Consols (tin), near Helston, | 95 | 80 90 | |
| 1000 | Tyllwyd (lead), Cardiganshire | 2 | 2⅛ | |
| 1024 | Wellington (copper & tin), Perranuthnoe | 6⅛ | 14⅛ | 14⅛ 15 |
| 1024 | West Alfred Consols | 5⅜ | 11 12 | 11⅛ |
| 1024 | West Ding-Dong (tin) | ⅛ | 3 | |
| 512 | West Providence (tin), St. Erth | 10 | 68⅛ 70 | 75 |
| 1024 | West Wheal Treasury (copper), Gwinear | 8 | 7⅛ 8⅛ | 7⅛ 8 |
| 1024 | West Wheal Virgin (tin), Sancreed | 1 | 2⅛ 2⅛ | |
| 256 | Wheal Albert (copper) | 10 | 28 29 | |
| 3072 | Wheal Augusta (tin), St. Just | ⅛ | 1⅛ 2 | 2⅛ 2⅛ |
| 120 | Wheal Bal (tin), St. Just | 10 | 24 | |
| 256 | Wheal Carpenter (tin), Gwinear | 1⅛ | 1⅛ | 1⅛ |
| 112 | Wheal Margaret (tin), Uny Lelant | 79 | 165 | 175 |
| 1024 | Wheal Neptune (copper), Perranuthnoe | 1 | 1 1⅛ | |
| 1080 | Wheal Oak, near Helston | 1⅛ | 1⅛ | |
| 240 | Wheal Reeth (tin), Uny Lelant | 20⅛ | 110 | 100 105 |
| 1024 | Wheal Squire (copper), St. Erth | 1⅛ | 1⅛ | |
| 1000 | Wheal Susan, Breage and Crowan | 1 | 2⅛ | |
| 1024 | Wheal Tremayne (tin and cop.), Gwinear | 9⅛ | 20⅛ | 20⅛ |
| 1024 | Wheal Trelusback, Stythians | 5 | 5⅛ 6⅛ | |
| | WALES. | | | |
| 1248 | Allt-y-Crib (silver-lead), Talybont | 5 | 10 | |
| 1500 | Bishopstone (silver-lead), Glamorganshire | 2⅛ | 10 | |
| 8000 | Blaenavon (iron) | 50 | 12⅛ | |
| 10000 | British Iron, New, regis. (iron) | 12 | 8 | |
| — | Ditto ditto, scrip | 10 | 10 | |
| 2000 | Bronfloyd (lead) | — | 4 | |
| 2400 | Bryn-Arian (lead), Cardiganshire | 2 | 2 | 2⅛ 2⅜ |
| 1000 | Bryntall, Llanidloes, Montgomeryshire | 2⅛ | 16 18 | |
| 2000 | Bwich Consols (silver-lead), Cardiganshire | 4 | 4 4⅛ | |
| 1000 | Cae-Gynon (silver-lead), Cardiganshire | ⅛ | 4⅛ | |
| 20000 | Cameron's Steam Coal (coal), Swansea | 10 | 2 2⅛ | |
| 200 | Cefn Bruno (lead), Cardiganshire | 6 | 50 52⅛ | 55 |
| 2500 | Cefn Gwyn (silver-lead), Cardigan | 2 | 2⅛ 2⅜ | |
| 900 | Court Grange (silver-lead), Cardiganshire | 10 | 12 | |
| 1600 | Craig-y-Mwyn (lead), Llanrhiadr, Mont | 8⅛ | 10⅛ | |
| 1000 | Cwm Daren | 1 | 3 | |
| 1000 | Cwm Erfin (lead), Cardiganshire | 6 | 6 6⅛ | |
| 2000 | Cwm Sebon | — | 4 | |
| 128 | Cwmystwith (lead), Cardiganshire | 60 | 105 | |
| 1000 | Daren (silver-lead), Cardiganshire | 2 | 8 | 7 |
| 3000 | Dyfngwm (lead) | 10 | 11 | |
| 150 | East Daren (lead), Cardiganshire | 17 | 55 60 | 60 62⅛ |
| 1280 | Esgair Llee Llanfihangel-y-Croythin | 4⅛ | 5⅛ | 2⅛ |
| 1024 | Freidd Llwydd Mines (lead) | 1⅛ | 3⅛ | |
| 1000 | Gelli-rei-vin (silver-lead), Cardiganshire | 1 | 5 | |
| 100 | Goginan (lead), Cardiganshire | 40 | 200 | |
| 100 | Lisburne (lead), Cardiganshire | 75 | 700 | |
| 1000 | Llwynmalees (lead), Cardiganshire | 9⅛ | 8 | |
| 3600 | Llynvi Iron (iron) | 50 | 50 | |
| 5000 | Merilyn (lead), Flint | 2⅛ | 3⅜ 4⅛ | 4 4⅛ |
| 1024 | Montgomery (lead and copper) | 7 | 11⅛ | |
| 200 | Nanteos (lead), Cardiganshire | 34 | 30 | |
| 3000 | Nant-y-Car (copper), near Rhayader | — | 5 5⅛ | |
| 4934 | Pennant and Craigwen (lead) | 3 | 3 | |
| 1000 | Penralt | 3 | 4⅛ 5 | |
| 1000 | Pen-y-bank and Erglodd (lead) | 4 | 6⅛ | |
| 2500 | Rhoswydol and Bacheiddon (lead) | 10⅛ | — | |
| 10000 | Rhymney Iron (iron), Rhymney | 50 | 12 | |
| 10000 | Ditto New | 7 | 3 | |
| 2000 | South Wales Mining Company (lead) | 1 | 1 | |
| 4000 | Tyn-y-Worglod (slate), near Carnarvon | 4 | 4 5 | |
| 2048 | West Goginan (silver-lead), Cardiganshire | 1⅜ | 2⅛ 2⅜ | 2⅜ |
| 1020 | West Nantymwyn | — | 2 | |
| | MISCELLANEOUS. | | | |
| 32 | Black Burn, Alston, Cumberland | 15 | 100 | |
| 5000 | Black Craig (lead), Kirkcudbrightshire | 5 | 5 | |
| 7100 | Derwent (silver-lead), Durham | 10 | 3 | |
| 1000 | Dhurode (copper) Ireland | 2 | 5 | |
| 4000 | General Mining Co. for Ireland (copper) | 1⅛ | 5⅛ | |
| 32 | Helvellin Mining Company, Westmoreland | 15 | 25 | |
| 10000 | Hibernian (copper) Ireland | 12⅛ | 1⅜ | |
| 1900 | Keswick (lead), Portinscale, near Keswick | 11 | 2 3 | |
| 787 | Kirkcudbrightshire (lead), Kirkcud. | 8⅛ | 5 5⅛ | |
| 5000 | Low's Patent Copper Company | 7 | 10 | |
| 5000 | Mendip Hills (lead), near Bristol | 3⅜ | 2⅜ 3⅛ | |
| 20000 | Mining Co. of Ireland (copper, &c.) | 7 | 4⅛ 5 | 4⅛ 4⅜ 5 |
| 2000 | South of Scotland | — | ⅛ 1 | 1 |
| 1024 | Weston (lead), Cherbury, Shropshire | ⅛ | ⅛ | |
| 5200 | Wicklow (copper), Wicklow | 5 | 19 | 19⅜ |

| | FOREIGN MINES. | *Paid.* | *Last Price.* |
|---|---|---|---|
| 5000 | Alten Mining Company (copper), Norway | 14⅛ | 3 |
| 12000 | Annotto Bay Mining Association (copper), Jamaica | 1 | 5⅛ 6 |
| 20000 | Australian (copper), South Australia | 4 | 1⅜ 2⅛ |
| 6000 | Barossa Range (copper), South Australia | 1⅜ | ⅜ |
| 10000 | Brazilian Imperial (gold), Brazil | 23 | 4⅛ 5 |
| 12000 | Cobre Copper Company (copper), Cuba | 40 | 32⅜ 33 34⅛ |
| 10000 | Copiapo Mining Company (copper), Chili | 14 | 6⅛ ⅜ |
| 20000 | General Mining Association (iron & coal), Nova Scotia | 20 | 14 |
| 5000 | Kinzigthal Mining Association (silver), Germany | 2 | ⅜ |
| 12000 | Liguanea and General Mining Company of Jamaica | 1 | 3⅜ |
| 5000 | Linares (lead), Spain | 3 | 2⅛ 2⅜ |
| 500 | Ditto Preference | 3 | 3⅛ |
| 4500 | Ditto New | ⅜ | 1 |
| 20000 | Mexican and South American (silver), Mexico | 8 | 1 1⅛ |
| 5051 | Mexican Company (silver), Mexico | 59⅛ | — |
| 5000 | National Brazilian (gold), Brazil | 30 | 2 |
| 10400 | North British Australasian (copper), S. A. & New Zea. | 1 | ⅛ |
| 7000 | Royal Santiago (copper), Cuba | 10 | 6⅛ 7 7⅛ |
| 11000 | St. John del Rey (gold), Brazil | 15 | 14⅜ ⅜ |
| 43174 | United Mexican (silver), Mexico | Av. 29⅛ | 6⅛ ⅜ 5⅛ ⅛ |
| 10000 | Worthing (copper), Adelaide, South Australia | 3 | 2⅜ 2⅝ |

## WHEAL GROSE SILVER-LEAD MINE,

NEAR WADEBRIDGE, CORNWALL.

Divided into 1000 shares, on the "Cost-book" System.

Lease 20 years unexpired.—Dues 1-15th.

This mine is in low ground. There are two lodes running through a soft blue killas, most congenial for silver-lead. Upon the first lode, which runs through the sett from 600 to 700 fms., an adit has been driven about 70 fms., is beautifully mineralised throughout, and averages about 2½ ft. wide. At the deepest part, which is only 5½ fathoms from grass, about 3 tons of ore were raised; it sampled 68¾ per cent. lead, and 83 ozs. of silver to the ton of ore. The underlay of this lode being only 4 inches in the fm., it may be worked without the usual heavy costs for cross-cutting at different depths. An engine-shaft is down 8 fms., and properly secured; but cannot be proceeded with till the engine is erected. It is estimated to cost £2000 to try the mine 50 fms. deep; but many miners think, from the appearance of the lode, that at 20 fms. deep it will pay all costs. The second lode falls into the first, about 100 fms. from the north boundary. A shaft has been sunk on this lode 6 fms., through a very promising gossan; but has not been further tried, except to ascertain its junction, and its afterwards forming with the other but one lode. The proprietors of this sett, not having sufficient capital to carry on the mine, have offered it for sale. A few persons here having procured reports of the prospects of the mine, have held a meeting, and—

Resolved,—That the reports on the prospects of the mine are highly satisfactory.

Resolved,—That we, the undersigned, agree to take the number of shares placed opposite to our respective names, at the rate of £1 per share (which was agreed should be accepted), such payment to include all costs up to the present time; and no further outlay to be made without the consent of a majority of the shareholders; all future outlay to be borne by the shareholders in proportion to the number of shares they may hold.

Resolved,—That a general meeting of the shareholders be convened as soon as the shares are all taken, to elect a committee, manager, &c.

The number of shares then taken was 700—viz.: 150, 100, 100, 100, 60, 50, 50, 40, 25, 25.

Parties desirous of taken any of the 300 shares now for sale are requested to address to Thomas Powell, Esq., the Gaer, or Mr. John Williams, Brynhyfryd, near Newport, Monmouthire; Durrant and Co., mining brokers, 58, Lombard-street, and Trevarton and Co., 5, St. James'-street, Pall Mall.

N.B.—There is water carriage to within 200 yards of the mine.

Newport, Monmouthshire, Feb. 21, 1851.

## COMPANIES PROCEEDING UNDER THE WINDING-UP ACT.

MERIONETHSHIRE SLATE COMPANY.—A meeting took place, on Thursday last, of parties interested in the settlement of the affairs of this company before the Master, Sir Wm. Horne. The case first taken was that of Dr. Lamb, of Battle, whose name, as we have before stated, was placed on the deed by his son, without his consent. Mr. Edward Augustus Lamb (the son) deposed to this fact, and that he had subsequently asked his father to confirm the act, but he declined. The case was ordered to stand over, to consider whether the son should not be put on the list. The Rev. T. D. Lamb, another son, appeared in the deed for 50 shares, which it appeared his brother had also "booked" him for, but he declined to have anything to do with public companies, and did not even know what "scrip" was. This case was also ordered to stand over. We have already shown the loose, if not fraudulent, manner in which this company was conducted; and Mr. West, the last secretary, fully confirmed the statement. Two or three sheets of paper stitched together represented the cash-book, and there was a chopping and changing of transfers among the directors, which he could not understand. Sir Wm. Horne said, it was lamentable to see how the business of a company, entangling so many honest people, had been conducted. There appeared to be a total absence of the proper books and vouchers that ought to characterise a mercantile concern, and it was impossible not to entertain strong feelings on the way in which the company appeared to have been carried on, when it was seen in what difficulties highly respectable persons, having little or no knowledge of law, were now placed by the company's miscarriage and misconduct.

KOLLMANN'S RAILWAY LOCOMOTIVE AND CARRIAGE COMPANY.—At a meeting before Master Kindersley (to make a final call of 9*l.* per share to pay off outstanding liabilities), from the statement of Mr. Goodchap, the official manager, it appeared that the total amount of debts that had been brought in under the estate was 2382*l.*, of which 1419*l.* only had been allowed. The call of 9*l.* was necessary, owing to the costs arising in several cases in appealing from the Master's decision, the litigation in respect of the claims that had been reduced, and from the circumstance of several of the shareholders, from insolvency, not having responded to the former calls. Mr. Daniel, who appeared as counsel on behalf of some of the shareholders, opposed the making of the call, three calls of 4*l.* per share each having already been made on the contributories, until the official manager shall have verified upon affidavit his statement as to the necessity of a further call. Upon this understanding further proceedings were adjourned for a week, the Master giving the parties the option of taking the case to the court on appeal.

NATIONAL DISINFECTED MANURE COMPANY.—At a meeting before the Master in Chancery, a call of 2*l.* per share was proposed by Mr. Harding, the official manger, to pay off debts: it appears that the creditors at a meeting consented to take 13s. 4d. in 1*l.* in discharge of their claims. The liabilities originally lodged in the office have been reduced by the official manager from 7000*l.* to 1200*l.*, but out of the 217 shareholders on the list of contributories, it is found that owing to insolvency, and from other causes, 12 only are able to respond to the present call.

MADRID AND VALENCIA RAILWAY.—In order to complete the list of contributories, Master Blunt has given notice that all persons holding scrip certificates, and who have not yet produced them, are to do so to Mr. Quilter, the official manager, before the 20th inst., on which day, in cases of doubt, the Master proposes to have the matters investigated, and proceed to settle such list, and specially exclude all those who may not by that day have claimed to be included therein.

HEREFORD AND MERTHYR RAILWAY.—After considerable discussion, Master Richards decided on admitting only as a claim, and not as a debt against this estate, a charge brought in by Mr. Taylor, engineer and surveyor, of 1000*l.*, balance of claim originally 2200*l.*, but of which it was adm